



voices of PRACTITIONERS

The teacher research journal of the National
Association for the Education of Young Children

Volume 11 • Fall 2016

naeyc[®]



voices of PRACTITIONERS

Volume 11, No. 1 Fall 2016

Online Teacher Research Journal of the National Association for the Education of Young Children

Voices of Practitioners Staff

Gail Perry, *Editor*

Barbara Henderson, *Coeditor*

Heather Benson Collick, *Editor in Chief, TYC*

Susan Friedman, *Senior Director, Content Strategy and Development*

Audra Meckstroth, *Senior Creative Design Manager*

Malini Dominey, *Creative Designer*

Catherine Cauman, *Senior Editor*

Denni Johnson and Mabel Yu, *Associate Editors*

Lisa Cook, *Editorial Consultant*

Joellyn Powers, *Editorial Assistant*

Executive Editors

Amanda Branscombe

Ben Mardell

Debra Murphy

Frances Rust

Andrew J. Stremmel

Editorial Advisory Board

Cindy Ballenger

Nancy Barbour

Barbara Bowman

Cheryl Bulat

Kathryn Castle

Sherry Cleary

Carol Copple

Carolyn Pope Edwards

Isauro M. Escamilla Calan

Mary Garguile

Anna Golden

Beth Graue

Lilian Katz

Mary Jane Moran

Leah Muccio

Carrie Nepstad

Rebecca S. New

Gail Ritchie

Stacia Stribling

Nathaniel U. Weber

NAEYC Executive Staff

Rhian Evans Allvin, *Chief Executive Officer*

Stephanie A. Morris, Marica Cox Mitchell,
and Richard Holly, *Deputy Executive Directors*

The National Association for the Education of Young Children offers early childhood educators professional development opportunities designed to improve the quality of services for children from birth through age 8—the critical years of development.

Become part of a respected and growing network of more than 70,000 members and over 300 local and state Affiliates. Since its founding in 1926, NAEYC has promoted high-quality standards in all programs for children, *encouraged professional development, and created leadership opportunities at local, state, and national levels. To learn more, contact us:*

online: www.NAEYC.org

phone: 800-424-2460 or 202-232-8777

fax: 202-328-1846

email: membership@NAEYC.org

mail: NAEYC, 1313 L Street, NW, Suite 500, Washington, DC 20005-4101

Voices of Practitioners is published online twice a year by the National Association for the Education of Young Children (NAEYC).

Through its publications program, NAEYC provides a forum for discussion of major issues and ideas in our field. We hope to provoke thought and promote professional growth. The views expressed or implied are not necessarily those of the Association. Acceptance of advertising does not represent NAEYC's endorsement of any product or service, nor is NAEYC responsible for representations made by advertisers.

Voices of Practitioners: Teacher Research in Early Childhood Education is NAEYC's peer-reviewed, professional online journal. Its main purpose is to provide a vehicle for publishing the research of early childhood teachers, who are often under-represented as authors in the educational research arena. This publication includes informative articles, resources, and tools to promote the participation of early childhood teachers in teacher research.

Cover photo © Jamie Solomon

Copyright © 2016 by NAEYC unless otherwise noted. All rights reserved.

No permission is required to excerpt from or make up to 100 copies of NAEYC-copyrighted articles in *Voices of Practitioners* as long as they are distributed at no cost. For any other uses, send permissions requests in writing to NAEYC Permissions Editor, 1313 L Street, NW, Suite 500, Washington, DC 20005-4101; or to jpowers@NAEYC.org.

For academic photocopying (course packets, study manuals) by copy centers or university bookstores, call the Copyright Clearance Center's Academic Permissions Service at 978-750-8400, or contact them online at www.copyright.com.

Submissions guidelines for *Voices of Practitioners* are available online at www.NAEYC.org/publications/vop/about/manuscript.

Contents

Introduction

A Tribute to Gail Perry and the Past, Present, and Future of *Voices of Practitioners* 1
Barbara Henderson, Frances Rust, Daniel R. Meier, Amos Hatch, and Andrew Stremmel

Teacher Research

Retrospective: *Voices of Practitioners'* First Teacher Research Article,
"A Dialogue With the Shadows"6
Voices Founding Coeditor Daniel R. Meier

[A Dialogue With the Shadows](#) 7
Isauro M. Escamilla Calan

Author Commentary: Teacher Inquiry: An Act of Self and Collective Reflection
to Improve Teaching Practice in Early Childhood Education12

[Gender Identity and Expression in the Early Childhood Classroom:
Influences on Development Within Sociocultural Contexts](#) 14
Jamie Solomon

Parallel Voices Commentary: Building Fires: Taking a Critical Stance on How We View
Gender in Early Childhood Education Through Teacher Research25
Barbara Henderson

[Making Peace in Kindergarten: Social and Emotional Growth for All Learners](#) 30
Holly Dixon

[The Influence of Materials on Inquiry Learning](#) 40
by Rachel Schaefer

Parallel Voices Commentary: The Journey Into Inquiry-Based Learning 49
Kay M. Cutler

[Implementing the Project Approach in an Inclusive Classroom:
A Teacher's First Attempt With Project-Based Learning](#)52
Stacey Alfonso

Supporting Teacher Research

[Making Voices Visible: Teacher Research in Associate Degree Teacher
Education in Our Community Colleges](#)62
Debra G. Murphy

[Assigning Reflective Memo Blogs to Support Teacher Research Data Analysis](#) 68
Megan Blumenreich

Introduction

**Barbara Henderson, Frances Rust, Daniel R. Meier,
Amos Hatch, and Andrew Stremmel**



Voices of Practitioners is a journal that would not have happened without the work and deep commitment of Gail Perry, a dedicated early childhood advocate and researcher with more than 50 years of experience in the field. Gail passed away just over a year ago, on July 22, 2015, surrounded by her large and loving family. This issue of *Voices* stands as a tribute from them and her many professional colleagues in celebration of a life well lived and as testimony to Gail's wisdom in acting upon an understanding of how much teacher research can contribute to the field of early childhood education. We will always remember her humor, intelligence, enthusiastic spirit, and unswerving efforts to bring the voices of early childhood practitioners into the research and policy arenas.

Gail was born on April 4, 1937, into a family of educators and activists. She lived much of her life in the Washington, DC, area; so it is not surprising that during the 1960s, she was instrumental in conversations leading to the creation of Head Start. She continued her advocacy as a major proponent of the program and, with 34 years as a Head Start consultant, to train staff nationwide. Gail also had an extensive association with NAEYC that began in 1957, the year she first attended the organization's Annual Conference. From 1979 to 2013, Gail served as the New Books column editor for NAEYC's *Young Children*. Gail eventually pursued her doctorate in early childhood education, studying at the University of Massachusetts and Harvard, and earning her PhD in 1984.

In 2003, Gail guided the launch of NAEYC's online journal, *Voices of Practitioners*, one of the few journals dedicated exclusively to teacher research, and the only one focused on early childhood. Gail's final major publication was, appropriately, an NAEYC book about teacher research entitled, *Our Inquiry, Our Practice: Undertaking, Supporting, and Learning From Early Childhood Teacher Research(ers)*, which she coedited with Barbara Henderson and Daniel R. Meier. We believe, as did Gail, that teaching is intellectual experimental work, and that teachers are positioned to inquire about their work in ways not available to anyone else outside the classroom. Teacher research is a form of inquiry unique to teaching, using methods familiar to teachers, and addressing questions that require sustained time to address in the embeddedness of classroom life.

Gail once said, “My long-term commitment to the field of early childhood education, especially in the area of teacher education, motivates me to continue to find new ways to reach out to teacher researchers, even when the battle to get more early childhood professionals involved seems insurmountable.” Her work on *Voices* echoes her “strong belief that teacher research is an invaluable tool for professional development and improved quality of teaching.” Gail also recognized that teacher inquiry could help uplift the profession and expand the role and image of the early childhood practitioner as an inquisitive, thoughtful, and intellectual educator. This vision translated directly to *Voices*, as Gail worked tirelessly within NAEYC to promote *Voices*, and with good cheer and a nudge, to corral her friends and colleagues into supporting *Voices* in schools, centers, community colleges, and universities. Gail knew how to blend her strong sense of advocacy with her commitment to elevating the professional image of early childhood as the foundational period of learning and development for children.



Gail (left) with classmate at Green Acres School

Gail also loved to work directly with authors for *Voices*, often calling on weekends or at night to discuss a particular passage or idea, or to make a suggestion for reorganization or additional emphasis. This attention to detail was an essential part of Gail’s effort to make sure that each author’s voice came through in their *Voices* article, and that the form and content of each piece were polished and presentable for a national and international online audience. Gail knew that the journal could make an impact on policy and practice, and she wanted to make sure that the authors spoke with authority, passion, accuracy, and depth.

This tribute issue begins with a retrospective piece, looking back at the very first example of teacher research that we published to launch the journal. This article, by Isuaro M. Escamilla Calan, appeared in *Young Children* in November, 2004, and was the teacher research study that accompanied text written by coeditors Gail Perry, Daniel Meier, and Barbara Henderson that explained the nature and goals of the then incipient journal. We include it here, 12 years later, with an introduction by Daniel Meier and an epilogue by Isuaro M. Escamilla Calan—both intended as reflections on Gail’s influence.

This issue also includes four other examples of teacher research. Each of these articles exemplifies the primary work of this journal as envisioned and supported by Gail’s work within NAEYC—that is, the publication of research written directly by teachers on their own daily practice in the classroom and based on close observations of the children they teach. Several of these teacher researchers’ studies were accepted under Gail Perry’s editorship, including Jamie Solomon and Stacey Alfonso. Several others were developed within the last year, and, while authors Holly Dixon and Rachel Schaefer did not get to meet Gail, her voice and vision were certainly in the heads of the editors as we worked with these authors to develop and polish their work. Two of the teacher research articles include a Parallel *Voices* commentary. These are generally written by a mentor of the teacher researcher and serve to extend and reflect on a study, often connecting the findings to the broader field.

This tribute issue also includes two articles for teacher educators. These articles meet the other major goal of the journal, that is to provide inspiration and concrete suggestions for those teaching in higher education, providing ways to infuse teacher research into teacher preparation. One of these is by Cape Cod Community College professor Debra Murphy, who reveals how Gail Perry was at the center of Debra's discovery of and growing expertise in the field of teacher research. The other is by Megan Blumenreich, who teaches at The City University of New York, and who has long been involved with the Teacher as Researcher Special Interest Group within the American Educational Research Association (AERA).

The world of early childhood education has forever been changed as a result of Gail's contributions. This issue is in honor of what Gail meant to the field and to those of us who worked with her on *Voices of Practitioners* for more than a decade. Gail would be proud to see NAEYC's ongoing commitment to teacher research as a vehicle for improving teacher preparation, career-spanning professional development, and increasing the status and professionalism of our field of early childhood education.

NAEYC would like to thank the *Voices of Practitioners* coeditor Barbara Henderson, and executive editors Frances Rust, Andrew Stremmel, Ben Mardell, Debra Murphy, and Amanda Branscombe, and former editors Daniel R. Meier and Amos Hatch for their continued support of *Voices* and teacher research.

We would also like to thank *Voices of Practitioners* Editorial Advisory Board members Cindy Ballenger, Nancy Barbour, Barbara Bowman, Amanda Branscombe, Cheryl Bulat, Kathryn Castle, Sherry Cleary, Carol Copple, Jerlean Daniel, Carolyn Pope Edwards, Isauro M. Escamilla Calan, Mary Garguile, Anna Golden, Beth Graue, Barbara Henderson, Lilian Katz, Ben Mardell, Mary Jane Moran, Leah Muccio, Debra Murphy, Carrie Nepstad, Rebecca New, Gail Ritchie, Frances Rust, Andy Stremmel, Stacia Stribling, and Nathaniel U. Weber for their support and work providing peer reviews that made this tribute issue possible.

Teacher Research

***Voices of Practitioners* First Teacher Research Article “A Dialogue With the Shadows”**

Barbara Henderson and I flew to Los Angeles after 9 /11 to meet with Derry Koralek, then-editor of *Young Children*, at the NAEYC Annual Conference. We proposed our idea for a feature in *Young Children* on the teacher research work of early childhood teachers and administrators. While she liked the idea, it did not come to fruition until she asked Gail Perry to initiate the project within NAEYC, and over the next few years, *Voices of Practitioners* was born, the first online journal devoted solely to the publication of early childhood teacher research.

Gail was very much enamored with Isauro Michael Escamilla Calan’s “A Dialogue With the Shadows,” which he had written on his own as part of the inquiry work that Barbara Henderson had started at Michael’s preschool in San Francisco. “Shadows” was the first piece published in *Voices*, and Gail recognized the piece as an eloquent and detailed teacher inquiry account of teachers and children listening to one another and engaging in collaborative and inventive inquiry. More than 10 years later, Isauro’s “A Dialogue With the Shadows” remains fresh and relevant, an example of teacher inquiry that brings the voices and ideas of children and adults to the forefront of our thinking about the potential of early childhood education to change lives.

For an immigrant male teacher from Mexico, teaching primarily in his second language of English and in an adopted new country, Isauro’s piece also exemplifies the critical contributions that immigrant teachers have made to the early childhood field in America, and to our understanding of the value of teacher inquiry and reflection. His voice—in capturing the children’s wonderment with the shadows and the role of families and teachers in inquiry—remains strong and relevant as a voice for elevating teachers as intellectual and social inquirers, committed to personal and professional change and transformation.

It is clear from Isauro’s article that, although he never visited Reggio schools, he absorbed early on the essence of Reggio and project work—deep and sustained inquiry and documentation in teaching and learning—and that he has always maintained an inquisitive, curious approach toward teaching and learning. As he continues toward his 20th year in the early childhood field, still teaching and still engaged in inquiry work with his preschool colleagues, Isauro reminds us through this early piece that inquiry is more than documentation. It’s an experience shared with others, and it’s in the sharing (of shadows, of questions, of wonderings) that we glean personal and professional meaning and relevancy in our work. This is what Gail Perry recognized so well—that Michael and others featured in *Voices* have important things to say about high-quality early childhood education, and their ideas, experiences, and voices need to be heard in the field.

This is the first teacher research article published in *Voices of Practitioners*

A Dialogue With the Shadows

Isauro Michael Escamilla Calan



My teacher research was conducted with kindergarten-age children at an after-school and holiday care child development center and was sponsored by a California school district. The center primarily serves Chinese families and other recent immigrants.

Although I have also taught school-age children, I currently work with preschoolers. I use ideas from project approach theory and Reggio Emilia as the inspirational forces for my teaching. The ideas from these approaches not only strengthen my daily teaching but also help me understand how and why children learn, and how I myself learn as a teacher.

We know that learning is based on a system of relationships and connections. Looking at my teaching and at children's learning helps me see those hidden connections and understand what goes on under the surface of our everyday interactions and projects.

Working on projects and documenting our learning is a form of research into understanding what the children and I are learning. In this article, I discuss

Isauro M. Escamilla Calan, MA, is a preschool educator at LasAmericas Early Education School (SFUSD), in San Francisco, California. He is currently a guest lecturer at San Francisco State University, teaching a class on how to best support English language learners in a multilingual preschool setting. escamillai@sfusd.edu

one project on shadows that kindergarten-age children carried out with me and my assistant teacher.

Teacher research focus

I used this project, in one way, as an assessment of my own teaching skills. I asked myself, How do I listen to children? What do I learn about what is on their minds, how they think, and what skills they have? It was important to find the children's voices because we were trying to create an atmosphere in which children's ideas are supported and heard without any judgment on my part.

Doing project work is really about learning how ideas grow and develop and what they mean for children's learning and our own development as teachers. For instance, there are many ways for children (and for teachers) to express ideas. Many times, children are not able to express their ideas with fluency, but this does not mean that they do not understand

what is going on around them. Some children are very verbal and contribute to a discussion; some can't speak yet, maybe because they are shy or they don't know the language, but they do understand and they do have ideas.

In project work, we observe and we listen. If not, we have no ideas. Beginning a project and researching our teaching might start in a subtle, quiet way for children and for us. For example, if children are quietly playing with blocks and trying to make a car go from one place to another, we have only to look—there is an idea right there.

We ask children, and we look for ourselves to see, if they have any problems. Maybe a bridge is too short or not strong enough. When that revelation happens, it is the moment we are looking for. And when there is a problem, there is an even bigger idea. If the bridge falls down or if one car comes one way and the other comes the opposite way, we ask, "What would happen if...?" The answer to that question becomes a hypothesis to research

and understand. So my own understanding and teacher research are really embedded in my children's research and learning. Our data collection included transcriptions of adult-child conversations, group discussions, observations, and documentation panels with children's drawings, photos, and quotes.

The shadows project emerges

When the children in our kindergarten class found a snail in the garden, we thought this small creature could be the springboard for our new class project (we adults had been paying close attention to children's conversations, and they seemed genuinely interested in this slow mover). We carried the snail inside the classroom and put it on a white sheet of paper on a table next to the windows. The children looked at the snail very carefully with magnifying glasses and made a few remarks about its slow, dragging motion. Seizing the opportunity, we teachers supplied the children with



A snail out for a walk
—Francisco



A snail in love
—Brian



Small snail has a small shadow
—Michelle



Big snail has a big shadow
—Ernesto

paper and pencils so they could draw a likeness of our visitor. Some of the children's representations follow.

As the children set about drawing the snail, sunlight came through the window and cast the snail's shadow on the white paper. This led the children to attempt drawing the snail and its shadow. These are some of those drawings.

Later the same day, Annie presented a carefully drawn self-portrait of her new haircut. When she presented it to the class, the children couldn't decide if the dark-colored image they saw on the reverse side of the paper was a shadow of her head. What Annie had created was a back view of her head to fully show her new haircut.

This moment of debate provided a good opportunity to record the children's ideas to present them back to the children on another occasion. From then on, we tried to follow up on the children's interests in shadows. The project on snails that we thought might begin, and the project on self-portraits begun several weeks before, were shifting and merging.

This commingling marked the beginning of our project on

shadows. In doing project-based work, I find this is often how projects develop. Projects are not linear processes; sometimes we don't even know a project has started, but in this instance I could see that the shadows project had begun.

Discussing our shadows project

In having a discussion with a group of 18 children, 10 felt confident enough to express their ideas to the group. In conversations like this, teachers are not making judgments; our role is to facilitate the dialogue with open-ended questions. All responses are accepted and written down on the board.

At the initial level of project work, it is not important whether children's answers are right or wrong. What is important is that they are expressing their thoughts and formulating theories. Children support their theories with explanations based on their own experiences.

Through children's explanations, as teachers we are able to see how the children perceive the world around them. When children try to make sense of their world, they are making connections. This is why

it is important to ask meaningful open-ended questions and to take seriously the children's answers.

I began the conversation by asking, "Why do we have shadows?"

Francisco: I think because the sun is shining.

Javier: Because the sun makes shadows.

Ernesto: I know. Because the sun is bright. And the sun comes out and the shadows come out. And then, when the moon comes out, the shadows go away.

Francisco: When the sun follows you and the...

Javier [*interrupting Francisco*]: The sun doesn't follow you. The shadows follow you. When it is very hot, the shadows follow you every place you go.

Bryan [*apparently still thinking about Ernesto's statement about the moon*]: At nighttime we don't see the shadows.

Michelle: But if you come home and then you turn the lights on, then you have your shadow.

Maria: When it is nighttime, you can see a little bit of shadows.

Michelle: When you turn off the lights, then you don't see the shadows.

The conversation extended through three more questions: "When you don't see your shadow, where do the shadows go?" "Why do you like your shadow?" and "How many shadows do we have?" Maybe this last one was not a good question



because nobody answered. But then after a few moments, Tony, who had been silent until then, spoke: “We have only one shadow because there is only one sun.”

Teachers reflect

As teachers we also need support—to develop a stronger sense of professionalism in the classroom. Besides the technical support (camera, tape recorder, film, and film development), we also need the collaborative support of not only our coworkers but also the administrators and children’s families. I was able to do this

project at my center because I knew that I could count on everyone’s open-mindedness and flexibility. For example, there were times when I didn’t take a break because something important was happening with the children, and I just couldn’t leave. I coordinated with my coworkers to take my break at another time. I asked this of my staff as well so they could keep working on a particular activity. Our site manager made staffing arrangements for them to leave early another day.

At the end of each project, families made an effort to participate in a celebration of the project. They

were invited to a slide presentation and review of the documentation of the children’s work. Parents brought healthy snacks for the kids, and this turned into a family evening.

Role of the teacher

We are working to find the role of the teacher. Some teachers are not comfortable writing or taking pictures, but we need to be empowered and to empower one another. Our site supervisor, Lynne, pushed a little as well. She was someone with a vision for what children can do, and we all have had open dialogues with her.

Five Elements of Teacher Research in Michael’s Project

1. The teacher research focus

Michael assesses his own teaching. He asks himself how well he listens to children to find out what they know and what they need.

2. Background information about the children and the setting

This project is on kindergarten-age children in a public, district-level after-school program. Most children are multilingual dual language learners.

3. Process for collecting and understanding the data

Michael’s data include transcripts of conversations, collections of children’s work, photos, and the documentation panels created as the project evolved in the classroom. To analyze and understand the data, he refined his original question, Do I listen carefully enough to all of my students so that they see themselves as capable theory makers? Using criteria and in collaboration with colleagues, he reviewed the data to find specific evidence that he had heard and honored both talkative and more silent children’s theories about shadows.

4. Reflection on the findings and learning

- Strong projects arise in nonlinear ways when we are able to listen closely to children and follow up on their interests and excitement.
- Children have complex theories about how things work and fit together.
- Children who don’t speak up often know a great deal; our openness and attentiveness is key.

5. Recommendations for other teacher researchers

Deepen your teaching and your own learning as a professional by making the children’s voices visible through documentation. Experiment by working with your colleagues. See each teacher research project as improving and learning about yourself as a teacher researcher and as an early childhood professional.

In all, this project worked because a whole system of relationships grew into place and provided support. My assistant teacher and I became a team, and we had great respect for each other. We blended the boundaries of the traditional hierarchy of assistant teacher and teacher, and that is how these projects took place. We listened to the tapes together and talked about what we heard.

We shared a close relationship. And for this to happen, we needed to talk about the children. The more we talked, the more we documented, and the more we came to realize that what we were doing was just a start. I thought, for example, that after we had been doing documentation for about a year, we had gotten it. But gotten what? There is just the experience. The more you experience, the richer you become as a teacher, a person, a professional. What we did was small in comparison to what is being done in the Reggio Emilia schools—which are our inspiration to actively listen to the children and to make their learning experiences visible through the art of documentation.

Conclusion

This is how our projects go—layered into them are the words, drawings, gestures, and other ways of expression that the children have within them and that we try hard to document and reflect back on. Children have a tendency to use

the narrative to experience and to dream—everything becomes a story. As I record and document the children’s drawings, conversations, and ideas, I then engage in my own research process of understanding the power of the children’s learning and of my teaching.

For further reading

- Ballenger, C. 1999. *Teaching Other People’s Children: Literacy and Learning in a Bilingual Classroom*. New York: Teachers College Press.
- Ballenger, C. 2003. *Regarding Children’s Words: Teacher Research on Language and Literacy*. New York: Teachers College Press.
- Bisplinghoff, B.S., & J. Allen, eds. 1998. *Engaging Teachers: Creating Teaching and Researching Relationships*. Portsmouth, NH: Heinemann.
- Burnafor, G., J. Fischer, & D. Hobson, eds. 2001. *Teachers Doing Research: The Power of Action Through Inquiry*. 2nd ed. Hillsdale, NJ: Erlbaum.
- Cochran-Smith, M., & S. Lytle. 1999. “The Teacher Research Movement: A Decade Later.” *Educational Researcher* 28 (7): 5–25.
- Genishi, C. 1982. “Observational Methods for Early Childhood Education.” *Handbook for Research in Early Childhood Education*, ed. B. Spodek, 1–52. New York: Free Press.
- Goswami, D., & P.R. Stillman. 1987. *Reclaiming the Classroom: Teacher Research as an Agency for Change*. Portsmouth, NH: Heinemann.
- Hankins, K. 1998. “Cacophony to Symphony: Memoirs in Teacher Research.” *Engaging Teachers: Creating Teaching and Researching Relationships*, eds. B.S. Bisplinghoff & J. Allen, 13–25. Portsmouth, NH: Heinemann.
- Hubbard, R.S., & B.M. Power. 1999. *Living the Question: A Guide for Teacher Researchers*. York, ME: Stenhouse.
- Meier, D.R. 1998. *Teaching in Small Moments*. New York: Teachers College Press.
- Paley, V.G. 1998. *The Girl With the Brown Crayon*. Cambridge, MA: Harvard University Press.
- Project Zero & Reggio Children. 2003. *Making Learning Visible: Children as Individual and Group Learners*. Reggio Emilia, Italy: Reggio Children.
- Ulichny, P., & W. Schoener. 1996. “Teacher–Researcher Collaboration From Two Perspectives.” *Harvard Educational Review* 58: 496–524.
- Zeichner, K., & S.E. Noffke. 1998. “Practitioner Research.” *Handbook of Research on Teaching*, 4th ed., ed. V. Richardson. Washington, DC: American Educational Research Association.

Photographs: p. 7, © iStock; pp. 8 and 9, courtesy of the author

Copyright © 2016 by the National Association for the Education of Young Children. See Permissions and Reprints online at www.NAEYC.org/yc/permissions.

Looking back 12 years

Teacher Inquiry: An Act of Self-and Collective Reflection to Improve Teaching Practice

Isauro M. Escamilla Calan

Much has happened since 2004 when my first article was published in *Voices of Practitioners*. At that time, I was a student at City College of San Francisco working toward my associate of arts degree in early childhood education. I continued my formal education, and in 2009, I graduated from the master's program in education at San Francisco State University with a concentration in early childhood. Currently, besides my role as a preschool teacher, I am a guest lecturer in the Edvance SF PATH program at San Francisco State University, teaching an undergraduate class on how to support children's language development in multilingual settings. I am also one of three members recently elected to the governing board of the National Association for the Education of Young Children. Perhaps none of these changes in my career would have occurred without the mentorship, guidance, and support I received from Dr. Gail Perry.

In 2012, Gail, along with Barbara Henderson and Daniel Meier, encouraged me and other early childhood educators to look at our teaching practices, our learning environments, and our schools' support systems through the lens of inquiry and reflection in order to improve the educational systems in our own communities. They encouraged us to find our voices and to write about the myths, challenges, and successes of working with young children. These firsthand stories of the school lives of early childhood teachers, children, and the communities they serve were compiled in the book *Our Inquiry, Our Practice: Undertaking, Supporting, and Learning From Early Childhood Teacher Research(ers)*. This book explores what teacher research in early childhood settings looks like, why it is important to the field of early childhood education, and how teacher educators can support it.



In *Culturally Responsive Teaching and the Brain* (Hammond 2015), teachers are invited to engage in action research based on our guiding questions, to observe our content practice and children's learning behavior, to collect data with regularity, and most importantly, "[to] create a space and time to analyze and interpret it. Then reflect and adjust your practice" (9). Hammond suggests that we invite others to join us in our reflective journey by forming an inquiry group or book circle as a way to promote a sense of collaboration and accountability around our teacher research or teacher inquiry. At the preschool where I work, we have held monthly meetings for the last six years as part of our group inquiry process where our preschool teaching staff, instructional coaches, the principal, and invited guests collectively examine our teaching practices, evaluate the effectiveness of our teaching and learning systems, and make changes where needed to improve our children's first school experiences.

Over the years since my “Shadows” article was first published in *Voices of Practitioners*, I have learned that teacher inquiry—more than techniques or tools or procedures—is a mindset that requires those working with young children to be vulnerable and open to the possibility of a constant reexamination of their actions related to teaching and learning. Teacher inquiry requires teachers to be fully present by observing, documenting, analyzing, and making decisions that need to be reevaluated and reexamined in a fluid cycle of inquiry that energizes itself as a spiral toward individual and collective improvement.

Reflective teaching, as simple as it sounds, is not easy to engage in, because it requires early childhood educators to reveal their vulnerabilities, beliefs, actions, biases, knowledge, and expertise in front of others. It is less challenging to dissect and critique the work of others, but it is much more difficult to examine who we are as individual teachers. This is why it is so important to create a school culture of respect for different points of view and educational perspectives. A school community where teachers take an inquiry stance is a collaborative effort where teachers take risks and are not penalized for trying something new and possibly making mistakes as part of a self-discovery process. Unfortunately, when teachers don’t have supportive work environments where they feel free to share their deepest thoughts, then they keep their concerns, emotions, and ideas related to their practice mostly to themselves. In this sense, the concept of teacher research or teacher inquiry offers the possibility of being liberating and, to some extent, transformative in its nature. Teacher research stirs something in the educator’s mind, intellect, and heart that motivates him or her to delve deeper into the self and look for meaning in the day-to-day classroom experiences, and in interactions with children and their families.

Becoming a reflective teacher takes time, trust, and self-awareness. Asking teachers to engage in reflective teaching starts with active listening. In the infant, toddler, and preschool centers of Reggio Emilia the teachers have fine-tuned the art of listening to children. Perhaps the art and science of teacher research (Meier & Henderson 2007) starts with listening carefully not only to what children have to say, but also to what teachers have to contribute to the ongoing conversation of how to improve our school systems. A pedagogy of

listening is a term that Carlina Rinaldi (2012) has coined, referring to a pedagogy of relationships underpinning a system that promotes deeper connections among teachers, children, and families. I have discovered that by carefully listening to different points of view from both teachers and children, we get to know each other well beyond our roles as educators and students—we learn to see each other as human beings. Perhaps educational transformation, whether at the individual, school, or community level, is possible through teacher research by respectfully listening to the ideas, theories, and explanations proposed by teachers and children in an effort to find meaning in the world around them.

I believe teacher inquiry gives early childhood educators an opportunity to create a new narrative of teachers as creative, critical thinkers and independent learners. This benefit becomes even more significant for minority early childhood educators with a long history of being silenced by mainstream theories of education or educational reform initiatives that tend to disregard their voices. The future of teacher research relies on each of us—practitioners in the field and in preservice programs—to advance our profession by holding an inquiry stance as it relates to our actions and their impact on the academic lives of our young students. I believe we can continue our inquiry journey together. Gail Perry helped create *Voices of Practitioners* as a resource for new and experienced teachers. Please, consider submitting your classroom stories and your inquiry projects; the more we make our work with children visible, the more our voices will be heard.

References

- Hammond, Z. 2015. *Culturally Responsive Teaching and the Brain: Promoting Authentic Engagement and Rigor Among Culturally and Linguistically Diverse Students*. Thousand Oaks, CA: Corwin.
- Meier, D.R. & B. Henderson. 2007. *Learning From Young Children in the Classroom: The Art and Science of Teacher Research*. New York: Teachers College Press.
- Perry, G., B. Henderson, & D.R. Meier, eds. 2012. *Our Inquiry, Our Practice: Undertaking, Supporting, and Learning From Early Childhood Teacher Research(ers)*. Washington, DC: National Association for the Education of Young Children.
- Rinaldi, C. 2012. “The Pedagogy of Listening: The Listening Perspective From Reggio Emilia.” *The One Hundred Languages of Children: The Reggio Emilia Experience in Transformation*, 3rd ed., eds. C. Edwards, L. Gandini, & G. Fomran, 233–46. Santa Barbara, CA: Praeger.

Gender Identity and Expression in the Early Childhood Classroom

Influences on Development Within Sociocultural Contexts

Jamie Solomon



During the past 10 years of teaching in the early childhood field, I have observed young children as they develop ideas about gender identity. I soon came to understand gender expression as a larger social justice issue, realizing how external influences were already at work inside the preschool classroom, impacting children's interactions and choices for play and exploration. This matter became a great priority in my professional life, leading me to look for ways to advocate for change. Some of this eagerness stemmed from my own frustrations about gender inequity and how, as a woman, I have felt limited, misunderstood, and pressured by societal constructs. These personal experiences inspired me to help further discussions about gender development within the early childhood field so that, one day, young children might grow up feeling less encumbered by unfair social expectations and rules.

Teaching preschool for six years at a progressive school, I was able to engage in ongoing learning opportunities, including observation and reflection. The

Jamie Solomon, MA, worked in the early childhood field for over 10 years, teaching at the preschool and college levels in San Francisco. Her teacher research projects have focused on gender development and emergent curriculum. Jamie has recently relocated to Southeastern Michigan.

school's emergent curriculum approach required me to pay close attention to the children's play in order to build the curriculum and create environments based on their evolving interests. Early one semester, while on a nature field trip, I noticed great enthusiasm coming from a small group that consisted mostly of girls. They attempted to "make a campfire" using sticks and logs. After observing several other similar play scenarios and listening to their discussions, I began building a curriculum based on the children's evolving interests. I started by offering opportunities to encourage this inquiry—for example, through drawing activities and providing tools to more closely explore the properties of wood. Several weeks later, I was gratified to see that among those most deeply engaged in our emerging curricular focus on wood, fire, and camping, the majority continued to be girls. The girls' behavior and interests involved characteristics historically categorized as masculine: joyfully getting dirty, doing hard physical work (in this case with hand tools), and being motivated by a perceived sense of danger acted out in their play—for example, pretending that a fire might erupt at any moment.

These exciting observations prompted me to investigate how a particular curriculum might encourage and support children to behave outside of society's gender constructs. My understanding of gender influences built over time;

each year I noticed the power and presence of these influences in the classroom.

These questions guided my study:

- How can I offer a curriculum that provides children with more opportunities for acting outside of traditional gender roles?
- How can I encourage and support children who wish to behave outside of traditional gender roles?
- How can I foster increasingly flexible thinking about gender among 4- and 5-year-old children?

The following study highlights excerpts not only from our major emergent project on camping and firemaking, but also from examples drawn from all of my teaching experiences that spring semester.

Literature review

Young children are continually making sense of their world, assimilating novel information and modifying their theories along the way. Most influences in the lives of young children—both human and environmental—reinforce existing stereotypes (Ramsey 2004). Without prominent caring adults helping them consider perspectives that challenge the status quo, children, left to their own devices, tend to develop notions that conform with stereotypes (Ramsey 2004). If children are regularly exposed

to images, actions, people, and words that counter stereotypes—for example through books, photographs, stories, and role models—they are likely to modify and expand on their narrow theories (Brill & Pepper 2008). Thus, educators of young children should offer their students different perspectives, including those that counter society's confined constructs, to allow children access to a range of roles, expressions, and identities (Valente 2011). Without such efforts, we stymie young children's development, keeping them from realizing the extent of their potential.

During this teacher research project, I found many examples of girls crossing traditional gender role boundaries but only a few examples involving boys. Some researchers believe this phenomenon, a common finding in gender studies, results from our male-dominated culture, in which being male or having male characteristics is associated with power, opportunity, and prestige (Daitsman 2011). Many young boys demonstrate awareness of these desirable qualities and perhaps worry about losing such advantages if they were to cross gender lines. Accordingly, educators must take an active role in providing both boys and girls counternarratives, and helping children question the status quo. Forman and Fyfe (2012) show faith in our human capacity to evolve, describing our understandings of the world as malleable. They

write, “We hold that knowledge is gradually constructed by becoming each other’s student, by taking an inquiry stance toward each other’s constructs, and by sincere attempts to assimilate or reconcile each other’s initial perspective” (247).

My goal is that this research will prompt educators to work on softening the system of gender rules that surrounds and governs our children. As Brown and Jones (2001) explain, “Changes in attitudes will not be achieved until certain fundamental dichotomies, which currently regulate aspects of classroom life, have been shifted” (143).

Methods

This study took place at a progressive San Francisco Bay Area preschool offering a full-day, year-round program. The school serves 2½- to 5½-year-olds. I conducted the study in my classroom of twenty-one 4- and 5-year-olds.

The children were from diverse backgrounds racially, culturally, and socioeconomically and represented a wide range of family compositions. While all 21 children in my class were observed during the research process, particular children and groups of children became more visible in the data for various reasons. Some children stood out to me as particularly conforming or nonconforming to traditional gender roles, as compared to their peers. Alternatively, I also focused on cases where I felt I had

witnessed a child break from their typical role or gender expression. I was the lead teacher and worked alongside and collaborated with two coteachers.

During the spring semester when this study was conducted, the children spent most of the morning hours in unstructured play time with the choice of working indoors or outdoors. We also spent at least one hour of every morning engaged in more structured activities, including circle time. The afternoons also included choices for indoor and outdoor play. Weekly field trips had long been integral to the school’s program, so my class left the campus each Wednesday to embark on a local adventure together.

Beginning this study in the spring, I benefited from having established relationships with the children over the first five months of the school year. By the time I began this teacher research, I had met with their parents during fall conferences and spent countless hours observing the children, connecting with them, learning their idiosyncrasies, and building trust. In fact, I had already come to know many of these children the year prior when preschoolers from various classrooms intermingled while playing in our shared yard.

My data sources included field notes and reflective notes, video and photos, and weekly journaling. The field notes generally consisted of my observations, which were recorded during natural discussions and spontaneous events. After leaving the classroom I revisited the field notes to fill in

contextual holes or other missing information. Fully detailed, my field notes offered vivid samples that I could use to effectively recall experiences for analysis. I believe in many cases I reproduced conversations accurately. At other times, I captured more of the flow of an event. Excerpts from my field notes, in the upcoming Findings section, reflect this range of detail.

My analysis uses a theoretical lens suggested by Rogoff (2003), which holds that human thinking and behavior should be understood within its particular sociocultural context, that is to say an environment greatly influences those who live and learn within it and vice versa. Thus, the data is viewed in consideration of situational factors such as structured versus unstructured play, children’s varied personalities, and larger societal influences like the media. My analysis also includes self-reflection, as I continually questioned my views on gender, knowing that my data had been gathered through my personal feminist lens.

The data collected—notes and images capturing young children’s expressions, behavior, and interactions—was examined for evidence of gendered thinking and possible influences that caused it. After first organizing my data chronologically, I proceeded to go through it, jotting down one to five words to describe each data sample. Moving slowly, I regularly returned to previous samples, making comparisons between records and reevaluating the

descriptions I was making. As new words or “codes” came to mind, I again returned to previous data samples to determine whether this concept was visible throughout the data. Thus, the process continued, moving forward and backward to compare, reevaluate, confirm new patterns, and then review. Next, I studied my list of codes and pulled those that seemed most encompassing to serve as overarching themes. The three themes that resulted, in relation to gender, were (1) influences of materials and teacher expectations; (2) children’s desire and search for power; and (3) expressions and behavior illustrating children’s state of mind and development. In the following section I explore these themes, illustrating each with

supporting data excerpts and my analysis of them.

Findings

Influences of materials and teacher expectations

Many factors influence children’s learning experiences in the early childhood classroom. This first theme examines how the available materials—whether closed or open-ended—might guide the children’s work and interactions with one another. I primarily focus on the props and tools that I, the teacher, provided the children, the intention behind the materials offered, and my expectations on how they might be used.

Of course other compounding factors should be considered here as well. For example, how our school’s philosophy plays out in our classroom, the physical environment, and the emergent curriculum topics we teachers have chosen. Such factors combine to create a stage upon which the children and teachers act.

Data collected on two different days revealed contrasting behavior among the children. The first excerpt focuses on two girls exploring new materials inspired by our emergent unit on wood, camping, and fire. During this play they assume less conventional female roles. In the second sample, the subjects of my observation include three boys whom I



Field Notes | February 12, 2014

While on a field trip, a co-ed group of children worked together gathering sticks to build a fire. Several of the girls led the effort, directing others to gather more grass, sticks, and small logs. Meanwhile, the group discussed their theories about stoking a fire. Several days later, I observed many of the same children using trowels to chip away at bark while trying to “make fire” in the school garden. Thus, I decided to offer the class different types of wood, child-safe saws, and sandpaper during small group time in the classroom and see who was interested. I stayed close by to ensure that the tools were used in a safe manner. Four children, Stella, Caitlyn, Anna, and Robby, joined the activity when I invited them over, and I was pleased to see the three girls in this group so enthusiastic to use the tools and experiment with the wood.

Photos capture the children’s intensity and concentration and, thus, their interest in the activity. Stella and Caitlyn focused intently on the wood as they worked solidly for over 35 minutes and stopped only because they were asked to clean up for lunch. Before leaving the table, Stella exclaimed, “I’ve never done anything so serious!”

observed handling baby dolls—props available throughout the year in our classroom—in a manner congruent with stereotypical gender norms. Also included in this excerpt is a girl who was seeking to interact with me while I watched the boys. The first data sample stood out to me during analysis and I have included it for the reader because it caused me to consider how some curricular materials might offer children opportunities for acting outside of traditional gender roles. In contrast, the second sample made me think more deeply about the types of materials that we typically offer children (e.g., baby dolls), how many of these play props have strong associations with only one gender, and how open-ended materials might be less limiting for a child’s self-expression and learning. (See “Field Notes, February 12, 2014.”)

When the children approached the camping activity table, I gave very little instruction. Instead I explained I had seen them working with wood recently, and I wanted to give them more time and tools for their investigation. Whenever I share such observations about children’s work and express curiosity, it seems to validate their interests and encourage their exploration. The group readily experimented. The activity was approachable, open-ended, and afforded a safe place to try out new ideas, actions, and roles.

The girls appeared empowered and stayed with their work for as long as possible. Their verbal expressions resembled those I had heard more often from boys in my classroom.

For instance, Caitlyn and Stella deepened their voices noticeably as they loudly delighted in each discovery, saying, “OHHH” and

“WHOA!” Apparently, this natural wood paired with carpentry tools served as entry vehicles into the vigorous roles that the girls assumed.

The logs were like those they had been gathering on our field trip when they tried to make fire, while the hand tools suggested new ways to transform the wood. Something about this scenario obviously captivated them, as the girls’ interest in working with wood and dramatic play related to campfires and camping continued over the next several months.

In organizing this activity, I had expected more boys to be drawn to the wood and hand tools. On reflection, I see these expectations were based on my own gender-biased assumptions. Instead, this activity attracted more girls, providing them the opportunity to further explore an interest outside of traditional female roles. Such traditional roles are reinforced when girls role-play motherhood, princesses, or female characters commonly found in popular movies and other media—activities far more common in my classroom than these girls’ work with wood.

On a separate occasion, much later in the school year, I found myself drawn to a group of three boys working in the dramatic play area—Robby, Peter, and Mason—during unstructured play time. I noticed that they had picked up the baby dolls, and I was intrigued, as I hadn’t seen them use the dolls before. They had also brought over a roll of tape.



Field Notes | April 11, 2014

Robby (R), Peter (P) and Mason (M) gather around a small table in the dramatic play area, while I, teacher Jamie (J), watch. Mason watches with interest while Peter and Robby play with the two baby dolls, which they have brought over.

R: Rip the head off.

P: No—you do it.

J: Pause and think, you guys. [*They all look up and over, now realizing that I'm watching.*]

P: We're not actually strong enough. Shiiiiing! [*P pokes a stick into the doll's eye.*]

R: Watch this. [*R bangs the plate on the baby and then proceeds to tape the baby to the plate. P follows his lead. The two boys fly the babies around the room, having connected them to the plastic plates, which seemed to serve as the dolls' wings.*]

Field Notes | April 11, 2014

Ella (E) leans in close to me (J), ostensibly wanting to chat, as she so often does. She shares the following idea with me, while I try my hardest to focus on the group of boys. After a couple of minutes, I realize how similarly meaningful Ella's monologue is to my study on gender.

E: I'm gonna be a mommy when I grow up.

J: Oh yeah? [*I raise my eyebrows, hoping that my response won't provoke her too much, as I try to return my focus to the other children.*]

E: I'm gonna have one baby, because it's hard to carry 120, 120, and 120 babies!

J: [*I smile.*]

Perching on a nearby stepstool, I grabbed my camera, a notepad and pen, and began recording. Meanwhile, I was slightly distracted by Ella standing next to me, as she simultaneously began sharing her future plans for motherhood. (See "Field Notes, April 11, 2014"—the following dialogues are presented side by side, as they took place.)

These data samples stood out to me because of the coincidence of these two concurrent stereotypical portrayals of gender roles. While observing the group, I had perceived Ella's dialogue as disruptive, unrelated to what I was in the process of capturing. In the moment, I was not fully focused on her thoughts and did not consider them significant to the situation. When I later reflected, however, I realized that Ella had noticed I was

observing this group of boys and their rough play with the dolls. Looking to connect with me, she offered her perspective on babies and caregiving.

Upon reflection, the boys' behavior reminded me of teacher researcher Aaron Neimark's description of his preschool boys playing what he called "basketball babies" (2012). Through his studies, Neimark (2012) noticed how young children often use objects in silly ways that diverge from the expected or intended use—for instance, pretending that basketballs were babies—and that this sense of creativity and comedy is an important component of peer culture. While there seemed to be an element of humor as the boys played with the baby dolls during my observation, I further wondered

about possible gender-related influences that may have caused them to interact with the props in this way. Though connecting the babies to plates and flying them around was a creative idea—a divergent one from how I had expected children to use dolls—I felt that their gender role expressions guided their actions more than simple imagination. The girls in my class didn't play with the dolls often, but when they did, their play was typically nurturing and gentle. I wondered if the boys had a tacit understanding that playing with dolls in a school setting is only acceptable if it is clearly distinct from the typical female version of such play (Brown & Jones 2001).

I find myself caught between a feminist perspective and that of the progressive teacher I sought to

be: one who embraces each child's unique interpretation of an activity or idea (Brown & Jones 2001). The gender roles that children assume, as defined by our culture, affect their play, from determining their interests to deciding how to play and how to make use of props (Meier & Henderson 2007). The data samples in this section suggest that the type of materials offered to children may provoke them to assume roles that are more or less stereotypical and could thereby influence their social interactions and learning. For instance, because baby dolls are socially constructed as feminine toys, they are less accessible for young boys. With an understood purpose for caregiving role-play, young girls can feel comfortable behaving in line with their stereotypical gender role while playing with dolls. Boys, on the other hand, are perhaps implicitly excluded from using these toys, lest they should act outside of their traditional gender role. If they do

use such materials, I have observed that their play usually deviates from the expected purpose. As a result, I find such gendered toys to be limiting for both young girls and boys. In contrast, materials that are less gendered and more open-ended—for example, natural materials such as sticks, pinecones, shells—encourage more creativity, stimulate imagination and allow for endless interpretations. Accordingly, open-ended materials are more likely to further children's cognitive, physical, and artistic development (NAEYC, n.d.).

Children's desire and search for power

This second theme explores the human desire for control and power. I noticed that the children sought and expressed power, for example, using it to exclude or include others, to influence a situation in their favor, or to feel strong. As with the first theme, the key data samples occurred on

different days. I chose examples that involved one child across two similar events: first in a position of subordination and then in a place of power. The first event took place at school and the second on a field trip. Both events occurred during structured playtime and both observations involved a group of three children—two had already established their play when a third approached and tried to join in. As teacher researcher Chris Taaffe (2012) found, such triangulated situations often prove challenging for the third child. The excerpts from the two field notes (See "Field Notes, February 24, 2014" and "Field Notes, April 9, 2014") demonstrate complex desires for power and how children learn approaches for exercising control.

In the field notes from February 24, Violet used her knowledge of gender constructs and her understanding of her friend Cora's somewhat conforming gender expression to control the situation. Violet did not offer Cora any role, like a sister or mom role, other than a monster. She knew that playing the monster is a less conventional option for a girl, and thus, a choice that Cora would probably not accept. Cora seemed to be penalized here for acting within her predictable gender role, which I found thought-provoking, as acting within one's gender role is frequently considered desirable and conducive to acceptance. Yet in this case, Cora's preference to express female gender conventionally gave Violet an easy way to exclude Cora.



Field Notes | February 24, 2014

Ella and Violet, 4 and 5 years old, respectively, are playing house. It's clear that they want to maintain their harmonious two-person play, as Violet tells Cora, "I just want to play with Ella right now."

Usually, I would have respected the wish of two children to play alone, but because Violet and Ella spend the majority of their time playing together, without the inclusion of others, I decided to push and see if they could find a way to include Cora. "Can you think of a way for Cora to play?" I ask.

Violet offers, "She can be the monster."

Cora immediately rejects the offer; she wants to be the baby. But, according to Violet, there are no babies in this game and the only possible role is that of a monster. Cora resigns herself to finding a different playmate, and Violet and Ella continue their game, uninterrupted.

Field Notes | April 9, 2014

Cora and Eddie are playing together while on our field trip in a wooded park. They walk closely side by side, talking quietly, every so often looking behind. Lillian follows after them and no matter how many times they change course, she remains several feet behind them, yet not really making her intentions known. Finally Eddie bursts out, "You can't play!" and Cora adds, "Stop following us!"

I move closer, intending to ask Cora and Eddie to tell Lillian their feelings in a kinder way. As soon as Cora sees that I've noticed the conflict, she quickly offers Lillian an alternative: "You can be the monster."

Lillian smiles and begins contorting her face and body to assume the role. Cora adds, "And you can chase us!" Lillian shows them she's ready by creeping forward just as Cora and Eddie take off in the opposite direction, screaming happily!

More than a month later, on April 9, I was fascinated to see Cora try a similar tactic with Lillian. This time, however, the interaction played out quite differently. Lillian readily seized the opportunity to become the monster, and I was

pleased and surprised that Cora and Eddie were completely open to her involvement. While Violet's intentions in the first scenario seemed clear to me, I was uncertain about Cora's motivation. I had observed that unlike Cora, Lillian

assumed nonconforming roles on a regular basis. If Cora really didn't want Lillian to join the pair, she would have had to make a different kind of proposal.

Both scenarios demonstrate the complexity of young children's interpersonal relationships within the sociocultural contexts influencing their lives. I and many other teachers have observed countless interactions involving a small group of children trying to protect their harmonious play from outsiders who could potentially disrupt the often fragile unity of young friendships (Neimark 2012; Taaffe 2012). I have witnessed children employ various strategies to exclude others and now realize how frequently they use their understanding of gender and culture to successfully block others from the play and determine who is permitted membership to the group (Brown & Jones 2001). Like Cora, some children can be understood as behaving from within a dynamic process that includes learning from peers and the media, experimenting with ideas, and making sense of gender roles and relationships.

Expressions and behavior illustrating a child's state of mind and development

I have noticed that around the age of 4, children can become resolute in their thinking and uncompromising on their theories about the world, as they try to organize experiences and concepts into neat, often dichotomous

categories. The following data sample typifies the kind of shortsighted perspectives children might adopt. Left unchallenged, these early views may be reinforced and become more permanent convictions. (See “Field Notes, February 25, 2014.”)

Addie has two younger brothers, one of whom is a very active 3-year-old and, according to Addie, “causes a lot of problems.” I thus attributed Addie’s concern mostly to her experiences at home. Still, I wondered about her belief that boys don’t like her. Where did this conviction come from? Teddy quickly disavowed Addie’s notion, and I noted how eager he was not to be implicated in an unfair assumption made about his gender.

In an effort to counter such gender stereotyping, my coteachers and I began implementing activities to acquaint children across genders,

such as co-ed lunch seating arrangements and partnered projects. We also began performing child-authored plays in which cross-gender roles were common (Paley 2014).

Discussion and implications

I began this study wondering how I might offer young children more opportunities to act outside of traditional gender roles. In the end, I realized that the children were working through complex ideas about the world. Our curriculum on fire and camping had encouraged some girls to step outside of gender roles, but it didn’t have a widening effect on all children—no single approach would. My findings showed that we needed a broader approach to advance children’s ideas about identity. Accordingly,

I selected the following strategies to modify my practice and undertake future teacher research:

- nurture flexible thinking across all situations
- find opportunities for children to step outside their comfort zones in regard to activities, peer relationships, and personal challenges
- foster advocacy skills in oneself and others

If people have the capacity to consider unconventional ideas and bend their thinking, our interactions with one another might look very different and be healthier for individual identity development. Furthermore, I realized that exploring and understanding gender identity shouldn’t be concentrated on the experiences of a select few, such as the girls who were so interested in the camping project. Rather, my goal should be to expand everyone’s mind, thereby making more room for children to express themselves individually across the identity spectrum.

While this research provides insight into the processes of children’s identity development, my findings are based upon one study I conducted independently over a spring semester. My feminist lens and personal perspectives influence all areas of my study—from gathering data to analyzing for interpretations, and deriving conclusions. However, such subjectivity is inherent in teacher research and considered an advantage of the methodology, as it offers an honest insider’s

Field Notes | February 25, 2014

Four-year-old Addie (A) approaches me (J) and shows me a jewel she is carrying in a special container. Her classmate Teddy (T) is playing nearby. I ask about it, and Addie explains why she is keeping her jewel in the container:

A: . . . the boys might break it. [*A looks down at jewel while talking.*]

J: The boys might break it? What makes you think that?

A: Because boys don’t like jewels. [*A continues to look down; T looks up from work and toward A.*]

J: Is there a reason why you think boys don’t like jewels?

A: Because they don’t like me. [*Looking down.*]

T: I like you. [*Said seriously and honestly.*]

perspective of a practitioner in action (Meier & Henderson 2007).

Conclusion

According to Meier and Henderson (2007), “Since early childhood is the foundation for young children’s views and experiences with getting along with one another, and with understanding and taking a stance toward the world of relationships, a focus in teacher research on social justice will deepen our character/ social curriculum” (178). I began this research project to take action on a social justice issue, but, over the four months of this study, most of my work focused on first making sense of what I was seeing. I ended up generating more questions than answers. Yet, it was this process of questioning that helped me to deduce some useful ideas for how best to continue identity work with young children.

I hope this study encourages other early childhood teachers to question gender issues that they might have otherwise accepted at face value. Looking critically at gender can allow teachers to have broader perceptions and interpretations

of daily classroom events, thereby allowing children more space as they develop their gender identities. My data shows the complexity of this topic, including compounding factors, influences, and considerations. It also demonstrates how pervasive socialized ideas about gender roles and expression are in our lives. While my findings need to be considered within the study’s limitations, I feel that I have successfully achieved a personal goal of sharing my feminist thinking with a larger audience within the field of early childhood education. Accordingly, this study gives voice to an important issue, and its value lies in my efforts to question the world, ease rigid thinking, and counter oppressive constructs (Valente 2011). Hopefully my teacher research “charges and challenges us to renew our commitment to an active, inclusive feminist struggle” (hooks 1994, 74).

References

- Brill, S., & R. Pepper. 2008. *The Transgender Child: A Handbook for Families and Professionals*. San Francisco, CA: Cleis Press.
- Brown, T., & L. Jones. 2001. *Action Research and Postmodernism: Congruence and Critique*. Conducting Educational Research series. Philadelphia, PA: Open University Press.
- Daitsman, J. 2011. “Exploring Gender Identity in Early Childhood Through Story Dictation and Dramatization.” *Voices of Practitioners* 14. www.NAEYC.org/files/NAEYC/file/Publications/VOP_Daitsman_Final.pdf.
- Forman, G., & B. Fyfe. 2012. “Negotiated Learning Through Design, Documentation, and Discourse.” Chap. 14 in *The Hundred Languages of Children: The Reggio Emilia Experience in Transformation*, 3rd ed., eds. C. Edwards, L. Gandini, & G. Forman, 247–71. Santa Barbara, CA: Praeger.
- hooks, b. 1994. *Teaching to Transgress: Education as the Practice of Freedom*. New York: Routledge.
- Meier, D.R., & B. Henderson. 2007. *Learning From Young Children in the Classroom: The Art and Science of Teacher Research*. New York: Teachers College Press.
- NAEYC (National Association for the Education of Young Children). N.d. “What the Research Says: Gender-Typed Toys.” www.NAEYC.org/content/what-research-says-gender-typed-toys.

Thoughts About the Article | Barbara Henderson, *Voices* coeditor

Gender is an element of identity that young children are working hard to understand. It is also a topic that early childhood teachers are not always sure how best to address. It’s not surprising, then, that Jamie Solomon’s article is the third teacher research study *Voices of Practitioners* has published that focuses directly on gender, joining articles from Daitsman (2011) and Ortiz, Ferrell, Anderson, Cain, Fluty, Sturzenbecker, & Matlock (2014). Jamie Solomon’s teacher research demonstrates how pedagogy that takes a critical stance on gender stereotyping is a social justice

issue because the performance of femininity still maps directly onto disparities in opportunity within our society. Further, she suggests how the male/female gender binary remains a default perspective and suggests how a more inclusive view of the gender spectrum can enhance and inform our practice and worldview. Her work interprets instances that arose naturally in her teaching, and it displays how teacher research is simultaneously a study of our professional and our personal selves.

- Neimark, A. 2012. "Do You Want to See Something Goofy?' Peer Culture in the Preschool Yard." In *Our Inquiry, Our Practice: Undertaking, Supporting, and Learning From Early Childhood Teacher Research(ers)*, eds. G. Perry, B. Henderson, & D.R. Meier, 53–64. Washington, DC: National Association for the Education of Young Children. www.NAEYC.org/files/NAEYC/file/vop/Voices_NeimarkGoofy.pdf.
- Ortiz, A., D. Ferrell, J. Anderson, L. Cain, N. Fluty, S. Sturzenbecker, & T. Matlock. 2014. "Teacher Research on Boys' Literacy in One Elementary School." *Voices of Practitioners* 9 (1): 1–19. www.NAEYC.org/files/NAEYC/file/images/voices/9_ortiz%20v9-1.
- Paley, V.G. 2014. *Boys and Girls: Superheroes in the Doll Corner*. Chicago: University of Chicago Press.
- Ramsey, P.G. 2004. *Teaching and Learning in a Diverse World*. 3rd ed. New York: Teachers College Press.
- Rogoff, B. 2003. *The Cultural Nature of Human Development*. New York: Oxford University Press.
- Taaffe, C. 2012. "Two's Company, Three's a Crowd: Peer Interactions in a Preschool Social Triangle." Chap. 3 in *Our Inquiry, Our Practice: Undertaking, Supporting, and Learning From Early Childhood Teacher Research(ers)*, eds. G. Perry, B. Henderson, & D.R. Meier, 21–35. Washington, DC: National Association for the Education of Young Children.
- Valente, J.M. 2011. *D/Deaf and d/Dumb: A Portrait of a Deaf Kid as a Young Superhero*. Disability Studies in Education series. New York: Peter Lang.

Read "Building Fires: Taking a Critical Stance on How We View Gender in Early Childhood Education Through Teacher Research," coeditor Barbara Henderson's Parallel Voices commentary for this article, to...

Photographs: pp. 18 and 20, © iStock; pp. 14 and 17, courtesy of the author

Copyright © 2016 by the National Association for the Education of Young Children. See Permissions and Reprints online at www.NAEYC.org/yc/permissions.

Commentary on the teacher research of Jamie Solomon

Building Fires: Taking a Critical Stance on How We View Gender in Early Childhood Education Through Teacher Research

Barbara Henderson

Jamie Solomon is a preschool teacher who focuses on questions of gender through a social justice lens. At first, Jamie thought this teacher research study would be about an inquiry-based project on fire building and camping. She had observed a small mixed gender group made up of a majority of girls who were showing exceptional interest around the idea of building a fire. On a field trip in a nearby natural area, Jamie was struck by how the girls engaged in a great deal of physical labor to gather logs and sticks, and how eagerly they sat in the dirt trying to create a “real fire.” Later, back in the classroom, Jamie provided hand tools to encourage the children to continue experimenting with the wood, and again noticed the same group of girls, showing the same intensity of interest and a high level of physical exertion in their efforts to try to transform the wood.

As the research project developed, Jamie’s critical feminist perspective rose to prominence, and this interest shifted her study’s focus. Thus, while the very first data excerpt in this article comes from the curriculum project that evolved to focus on camping, none of the rest does. Instead, her selection and analysis of data shifted to a broader look at how children behaved with respect to gender norms. Jamie’s critical feminist lens has at least two distinct effects on her teaching: first, she seeks to provide boys and girls equity of access to materials and other classroom resources, including adult attention; second, she supports the children to have choices for their modes of behavior in ways not limited by gender stereotypes.

To support gender equity in the classroom, Jamie creates social settings where boys and girls play and interact on equal footing. For example, in the classroom that she writes about in this article, she would set up novel high-interest activities and invite a pair of children (often a girl and a boy who otherwise would have interacted very little) to participate in them. She also created a special lunch table where rotating pairs of girls and boys who had not

Barbara Henderson, PhD, is the interim program director of the Doctoral Program in Educational Leadership and professor of education at San Francisco State University. As well as directing the doctoral program, Barbara is associated with the early childhood programs in the Department of Elementary Education, including the MA with ECE concentration and the combined MA with Multiple Subject Teaching Credential: ECE emphasis. Her interests are in teacher research and critical perspectives on children’s development and learning. She is coeditor of *Voices of Practitioners*. barbarah@sfsu.edu

previously been friends were seated together, while a teacher sitting at an adjacent lunch table helped the pair engage in conversation.

To combat gender stereotyping in her teaching, Jamie creates settings with open-ended play materials that invite all children to explore and create. She also encourages the girls in her class to engage in messy, physically challenging, and “risky” activities—the kind of play that, despite changes to society over the past 50 years, is still more common among boys and is more commonly expected to be enacted by boys by many parents and teachers. In the same light, Jamie provides settings where the boys in her classroom can feel supported in expressing their vulnerabilities and are comfortable and empowered when they act in nurturing ways toward others.

Given Jamie’s focus on gender and social justice, it is not surprising that a year after she completed this teacher research study, the children in her class spontaneously launched a project directly related to gender. They became upset about single-gendered bathroom signs and the stereotypic images used as labels, which they regarded as unfair. (This took place well before President Obama’s executive order related to students’ identified gender and the use of restrooms and locker rooms in public schools.) Jamie guided and supported the children to bring their observations, and suggested remedies for this issue to their school, and then to a broader public setting.

Indeed, gender is an extremely important element of identity that young children are working hard to develop, so it is not surprising that it has been a specific topic of study for two other articles that have appeared previously in *Voices* (Daitsman, 2011; Ortiz et al., 2014). Children’s sexuality is a related topic, and is addressed forthrightly in *Voices* in a 2013 article by Counterman and Kirkwood. Further, gender has been addressed in at least three other *Voices* articles. One is by Ying Liang (2015), who found gender to be a major part of how the children in her Mandarin/English bilingual pre-K classroom learned language through performances of gender. A second example is by Christopher Taaffe (2012), which explores hurtfully exclusive and precociously mature play patterns that he observed among a threesome of 3-year-old girls. Chris Taaffe’s study appears only in our *Voices* associated text (Perry, Henderson, & Meier, 2012), and so cannot be found online. The other article is one that Jamie cites, and is by Aaron Neimark (2008), which addresses gender most directly in a description of slightly subversive play called “basketball babies” that a group of boys engaged with. There is greater discussion of this game in excerpts of Neimark’s work presented in Meier and Henderson (2007), and the article also appears in Perry et al. (2012).

Jamie also connects her work to critical theories, citing the work of Brown and Jones (2001) that is specific to early childhood, to Valente (2011) from critical disability studies, and to bell hooks (1994), an academic who casts a larger light in the fields of critical race theory and critical feminist analysis of education. Jamie might have also cited other work in critical theory specific to early childhood, such as Vasquez’s (2014) book on critical literacies in early childhood, Blaise’s (2005) book on gender discourses in ECE, or the edited books by Yelland (2005) or by Parnell and Iorio (2015). This critical lens is an important growing edge to theory and research in the

field of early childhood education. Because teacher research is often conducted as a mode of advocacy for the children and families we work with and is done to enact social justice reforms, there is a high level of confluence between these fields of study. Jamie Solomon's work surely fits this pattern.

Jamie's article is also notable in the way she presents her data, because it shows how data of different granularity can work well in a teacher research project. She draws almost entirely from her field notes as data for this paper, although these were supplemented by a reflective journal and some video and photography. What is interesting to see across her five data excerpts is the variation in her distance from the children, as represented by the style of writing. Three of the excerpts are presented as retrospective narratives, with just a few direct quotes, all represented as reported speech. Jamie's relative distance on these moments is evident in how she draws connections between several different classroom events, how she reflects on her intentions, or in how she telescopes time to move the reader along to the climax of the interaction.

In the two other excerpts, Jamie sought to capture the children's voices, gestures, and tone in a more immediate way. As data, these examples feel more like running records of just a few moments of interaction—perhaps drawn from video—although Jamie told me that this was not the case. Instead, she recalled that some were written closer to the moment and that they were also incidents where she strove to represent the conversation as it had unfolded.

One of these running record excerpts is of the moment where Jamie quietly watches and briefly intervenes, saying simply, "Pause and think, you guys," as some boys tape baby dolls to plates so that they can fly them around the room, as sort of monster hybrid vehicles. At the same time, Jamie represents the interrupting voice of a young girl who was working hard to get Jamie's attention away from those subversive boys and to her own projected identity as a mother who will take proper care of just one infant, because "120, 120, and 120 babies" is too many. This excerpt works in its immediacy because it captures the split-screen perspective that Jamie felt as she watched the rather gender stereotyped behavior of the group of boys with flying babies, and the competing voice of the girl, who wanted Jamie to know she knew how to play properly with the baby doll.

The second excerpt where Jamie represents an unfolding moment in real time is her final example, where a young girl explains to Jamie why she must keep her jewel hidden from the boys and a young boy earnestly counters the girl's claim that "[boys] don't like me." The immediacy of this moment, as captured through speech and notes on the children's tone and gestures highlights the emotional vulnerability of the girl, and then of the boy. Jamie chose wisely to use speech instead of a retrospective narrative to preserve the believability of this gentle and tiny interaction.

As a teacher researcher, data collection is often a challenge and can rarely be completely controlled. Unlike an outsider researcher, the teacher researcher must balance the demands of systematically collecting data with the professional demands of running a well-oiled classroom. Much of Jamie's data collection was post hoc, and

so we see variation in the texture of the data related to how soon she could get to the data and to how vividly she recalled the moment. As a suggestion for how she could have expanded this study, Jamie might have talked with colleagues, families, and the children more directly about the topic. For example, eliciting feedback from families would have provided a window into how the children were talking about gender at home and could have drawn the families more immediately into the project. All the same, Jamie's data has real trustworthiness in the way it captures her exchanges with the children as an insider who knows these individuals and this classroom in a manner that an outsider researcher rarely (if ever) could match.

In closing, what is important to note in Jamie Solomon's analysis is how she willingly makes herself one of her objects of study. Teacher research requires us as practitioners to ask hard questions about our interactions with those we teach and to look with a critical eye to understand how to modify environments, modes of interaction, and attitudes so that we can more fully mesh our values with our actions. Jamie's values as an activist teacher who uses her teaching to work for social justice from a critical feminist stance are evident throughout this article. Her questions are not easy ones, and she comes to no easy answers. I hope that we will have many more examples of teacher research that look at social justice with respect to a range of aspects of human identity and difference that might include gender, race, social class, disability, primary language, immigration status, or family composition, to name a few.

References

- Blaise, M. 2005. *Playing it Straight: Uncovering Gender Discourses in the Early Childhood Classroom*. New York: Routledge.
- Brown, T., & L. Jones. 2001. *Action Research and Postmodernism: Congruence and Critique*. Conducting Educational Research series. Philadelphia, PA: Open University Press.
- Counterman, L., & D. Kirkwood. 2013. "Understanding Healthy Sexual Development in Young Children." *Voices of Practitioners* 8 (2): 1-13.
- Daitsman, J. 2011. "Exploring Gender Identity in Early Childhood Through Story Dictation and Dramatization." *Voices of Practitioners* 14. www.NAEYC.org/files/NAEYC/file/Publications/VOP_Daitsman_Final.pdf.
- hooks, b. 1994. *Teaching to Transgress: Education as the Practice of Freedom*. New York: Routledge.
- Liang, Y. 2015. "A Journey of Journals: Promoting Child-Centered Second Language Acquisition in Preschool." *Voices of Practitioners* 10 (2): 45-58. www.NAEYC.org/files/NAEYC/VOPLiang.pdf.
- Meier, D.R., & B. Henderson. 2007. *Learning From Young Children in the Classroom: The Art and Science of Teacher Research*. New York: Teachers College Press.
- Neimark, A. 2008. "Do You Want to See Something Goofy? Peer Culture in the Preschool Yard." *Voices of Practitioners* 3 (1): 1-11. www.NAEYC.org/files/NAEYC/file/vop/Voices_NeimarkGoofy.pdf.
- Ortiz, A., D. Ferrell, J. Anderson, L. Cain, N. Fluty, S. Sturzenbecker, & T. Matlock. 2014. "Teacher Research on Boys' Literacy in One Elementary School." *Voices of Practitioners* 9 (1): 1-19. www.NAEYC.org/files/NAEYC/images/voices/9_Ortiz%20v9-1.pdf.

- Parnell, W., & J. Iorio. 2015. *Disrupting Early Childhood Education Research: Imagining New Possibilities*. New York: Routledge.
- Perry, G., B. Henderson, & D.R. Meier. 2012. *Our Inquiry, Our Practice: Undertaking, Supporting, and Learning From Early Childhood Teacher Research(ers)*. Washington, DC: NAEYC.
- Taaffe, C. 2012. "Two's Company, Three's a Crowd: Peer Interactions in a Preschool Social Triangle." *Our Inquiry, Our Practice: Undertaking, Supporting, and Learning From Early Childhood Teacher Research(ers)*, eds. G. Perry, B. Henderson, & D.R. Meier, 21-35. Washington, DC: National Association for the Education of Young Children.
- Valente, J.M. 2011. *D/ Deaf and d/ Dumb: A Portrait of a Deaf Kid as a Young Superhero*. Disability Studies in Education series. New York: Peter Lang.
- Vasquez, V.M. 2014. *Negotiating Critical Literacies With Young Children*. New York: Routledge.
- Yelland, N. 2005. *Critical Issues in Early Childhood Education*. New York: Open University Press.

Making Peace in Kindergarten

Social and Emotional Growth for All Learners

Holly Dixon



As a master's student reflecting on my elementary school education, I realized that the academic knowledge that I gained each year seemed to have been related to the social and emotional feel of the classroom. I felt successful as a student when I felt cared for as a human being. Thinking back on my experience as a student inspired me to try to become a teacher who thinks about all facets of my students' lives. It also led to my research question: "How can teachers support children's social and emotional learning?"

My first student teaching placement took place in a second grade classroom in which the teacher had established a positive classroom culture that seemed to embrace the social and emotional needs of her students. A key component of the classroom was the "peace corner," a place where students could go to address social conflicts. The teacher told me she created the space to demonstrate her commitment to making students feel safe and

Holly Dixon, MEd, is a first grade teacher at Inquiry Charter School in West Philadelphia. Since 2008 Holly has taught in early childhood classrooms focused on social and emotional well-being, outdoor leadership, and elementary after-school programs.

secure, a place where each student could be seen as a “whole child.” Though I had observed some children solve problems there, I wondered whether the corner was effective for every child in the classroom.

I began my inquiry by watching two students work out a problem in the peace corner. I noticed that they displayed different ways of engaging in conflict resolution: Felix was attempting to make eye contact and use “I” statements, while Charlie, scanning the room, seemed disengaged and appeared to have difficulty finding the words to communicate his feelings. There could have been many reasons why Charlie seemed disengaged. Maybe his ability to recognize emotions in himself and others was less developed than his partner’s, or perhaps he was engaged but absorbed the information without making eye contact. There were so many possibilities to explain what I was seeing that I wondered what I might do to make it effective and meaningful for all students. I decided to focus on helping students develop the vocabulary for describing their feelings and the essential skills for exchanging ideas.

Review of the literature

My inquiry was primarily guided by research on teacher actions that promote deep learning by honoring the whole child in caring and equitable learning environments.

I focused on research related to children’s need for social and emotional well-being, the value of considering children’s multiple intelligences and diverse learning styles, and practices that mitigate issues associated with competition. My interest in supporting the personhood of my students—their uniqueness as individuals—is supported by Maslow’s hierarchy of needs (1943; see also McLeod 2016). Maslow prioritized needs ascending from physiological needs through psychological ones, ending with self-actualization. The idea is that humans are optimally motivated relative to the level at which their needs are met. The implications of this work suggest that meeting students’ basic needs for security and comfort are essential if optimal learning is the desired outcome.

As I tried to find ways to support a more learner-centered environment, Gardner’s theory of multiple intelligences was helpful. Gardner ([1991] 2011) holds that rather than being a singular construct, intelligence is a blend of eight intellectual capacities and associated mental processes: visual-spatial, bodily kinesthetic, musical, interpersonal, intrapersonal, verbal-linguistic, logical-mathematical, and naturalistic. Gardner claims individuals have varying levels of strength in each of these intelligences and in the way they process information. Like Maslow, Gardner had critics of his theory;

however, it is generally believed that learners are complex and diverse in their abilities and aptitudes. As such, many educators have drawn from Gardner’s theory to shape learning environments supportive of a wide range of strengths and abilities.

Although multiple intelligences are often seen as interchangeable with learning styles—sometimes conceptualized as learner types, such as auditory, visual, and kinesthetic (Grist 2009)—the two are distinct and have different implications for classroom use. Prashnig (2005) makes the distinction, writing: “*Learning styles* can be defined as the way people prefer to concentrate on, store, and remember new and/or difficult information. *Multiple intelligences* is a theoretical framework for defining/understanding/assessing/developing people’s different intelligence factors” (8).

My approach to setting up an environment in which equity and caring could reign was informed by Edwards, Gandini, & Forman’s (2011) Reggio Emilia-influenced frame for creating an “educational caring space” and Kohn’s (1987) work on competition. Kohn argues against comparing children’s performance with that of siblings and classmates. He suggests that acceptance should never be based on a child’s performance and holds that it is especially important that teachers be aware of the powerful modeling that they provide.

Developing a climate for peace

Questions about the peace corner in my first placement—how it was set up, the way children used it, and the impact it might have on children’s interactions with one another—stayed with me as I began my second placement, where I worked in a kindergarten class at a small, urban, Title 1 school in Philadelphia. The majority of the 14 boys and 14 girls in the class lived close to the school. Twenty were African American, six were White, and two were Asian. One of the 28 students was an English language learner.

A typical day began with an all school meeting that included announcements and recitations of the Pledge of Allegiance and school promise. Afterward, once the children arrived in the classroom, the kindergartners would put away their belongings, go to their seats, and write in their journals. The arrangement of the desks—grouped together to create five different teams—provided opportunities for positive student interaction as well as potential for conflict. Typically, the most difficult part of the morning occurred during this busy transition from the schoolwide meeting to the classroom as the children attempted to negotiate each other’s personal space. Negotiating personal space was a similar catalyst for conflict when the children were standing in line, sitting on the carpet, transitioning in and out of the classroom (e.g.,

group bathroom trips, hand washing, retrieving items from cubbies), having lunch, and, most frequently, playing at recess. These conflicts frequently resulted in children resorting to name-calling, shouting, and hitting. Generally, at these moments a crowd of students would form and seek an adult to deal with the source of their problem. My classroom mentor and I were bombarded with students’ reports of social injustices. Rarely were these reports preceded by children’s attempts to find a solution on their own.

While helping students resolve conflict, I began to realize they might benefit from learning how to properly identify their feelings and communicate them respectfully. It was January, and I had heard only one of my students use words other than *mad* or *sad* to articulate their emotions. Determined to empower my students, I planned

a thematic and integrated unit (Tomlinson & McTighe 2006) based on the social and emotional skills I thought my students needed to develop in order to become more independent problem solvers in and out of the classroom. A major part of my planning was finding ways to incorporate each of three sensory learning styles (auditory, visual, and kinesthetic) into as many of my lessons as possible, with the ultimate goal of empowering my students to identify and communicate their own feelings. I knew that in order for them to develop these new skills, I needed to use a variety of ways to enable them to practice the new communication skills.

I had laid significant groundwork in the months prior to implementation of the unit. Every week, I introduced my students to emotional vocabulary. Often, I had to provide the word’s meaning and an example of its use because



words such as *embarrassed*, *nervous*, *lonely*, *hurt*, *frustrated*, *annoyed*, *happy*, *scared*, *angry* were new to many of the children. I presented a new feelings word each day, asked what they thought the word might mean, and encouraged them to talk about a time they experienced that feeling themselves. Throughout the week, I used each new word frequently so that the students became familiar with hearing it. I kept anecdotal records noting when students used the new emotional vocabulary. The following is an example of children using more specific emotional vocabulary:

Christopher: This weekend I thought of another feelings word that's like mad and angry.

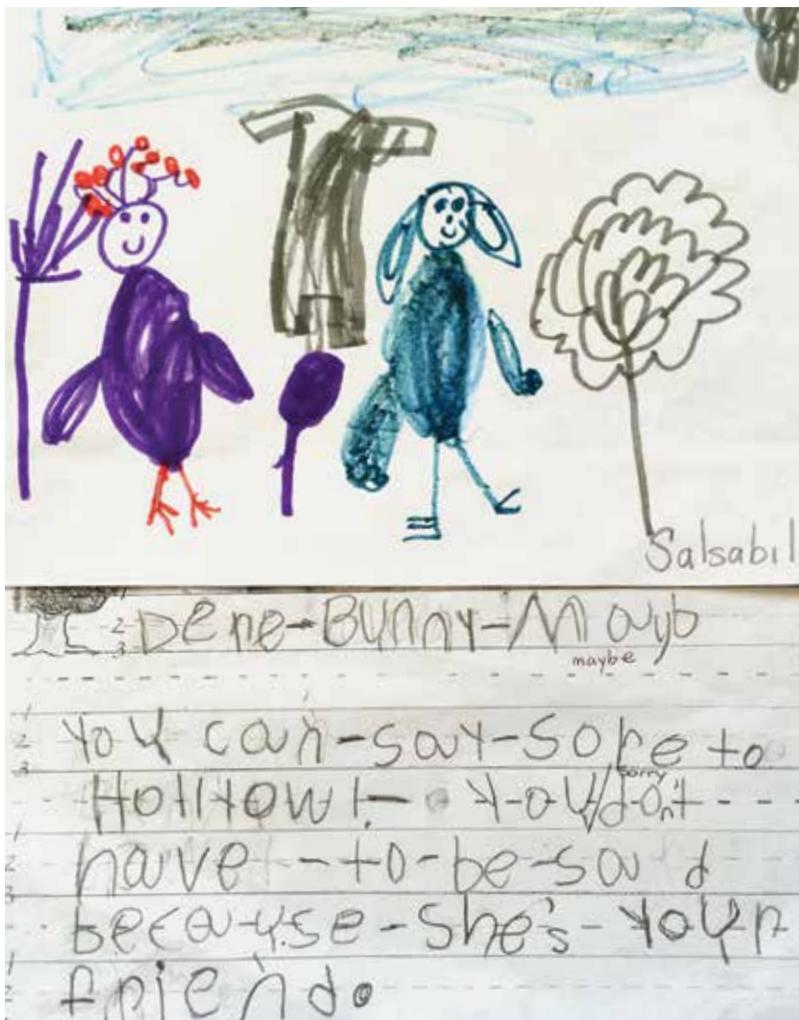
Teacher: Oh? What word did you think of?

Christopher: Disappointed!

Teacher: That's a great feelings word! Were you feeling disappointed this weekend?

Christopher: No. I just thought of the word and thought, I gotta tell my teacher this week!

After students began to use the new vocabulary for themselves, I tried to arrange opportunities for them to interpret others' feelings. I created two original puppet characters, Holly Owl and Bunny, who helped the children discuss conflict and the multiple perspectives accompanying conflict. I introduced one character at a time as the puppets sought the children's help in their own puppet kindergarten drama. The first narrative involved a lunchroom



scenario because it was similar to their day-to-day struggles during lunchtime.

Holly Owl is livid when Bunny spills milk all over her feathers at lunchtime. Holly is so upset that she flutters off in a rage about being sticky—she has revenge on the brain! Not knowing what to do, she asks for advice from the kindergartners on how to approach Bunny. After Holly Owl thanks the class for

the tips and says “Goodbye,” Bunny appears and tells her side of the story—she reached over to get her fork and her long, floppy ear knocked over her milk, causing it to soak Holly Owl. Bunny felt horrible. When she looked up, Holly Owl was fuming; steam was coming out of her ears! There is no way Bunny is going to apologize to such an angry owl. But now, time has passed and they haven’t talked to each other all afternoon.



Bunny is scared that Holly Owl will absolutely hate her forever. She tells the children, “I’m so scared. I just don’t know what to do!”

We decided to brainstorm for Holly Owl and Bunny. Together, the class wrote letters to both puppets, sharing advice on resolving the conflicts. After all the letters were complete, I took them home to read to Holly Owl and Bunny. The following day, I brought the puppets back to thank the children for all their helpful advice. Holly and Bunny then resolved their conflict for the kindergartners, modeling the advice the children had written. This first use of puppets to resolve conflict became a common reference point for the children, and the puppets appeared in a variety of contexts throughout the semester.

Everyone needs a peace puppet

The children took such interest in the puppets that they asked if they could create their own. As a class, we brainstormed how to make puppets, writing down ideas for materials as well as what purpose our puppets would serve. We voted and decided to name them “peace puppets.” Students brainstormed in pairs to create character descriptions, settings, and a point of conflict for their characters. Once a scenario was established, students wrote about ways the puppets could approach their problem to find a solution. This seemed to work as a warm up or context builder for making the puppets.

Puppets were created using wooden spoons, fabric, rubber bands, paper, yarn, colored pencils,

and hot glue. When it came time to use the peace puppets, I noticed that those children usually least inclined to speak in social contexts came to life with intensity. It was as if the puppets gave them a voice that they were not yet ready to use on their own. Each student accepted their own puppet’s unique qualities and each other’s by taking special care of the toys during play and displaying pride in them. Their actions with the puppets seemed to say, “I accept myself and I accept others.” After a while, the peace puppet theater became an important supplemental activity and place for students to exercise their ability to problem solve and care for one another.

Introducing the peace corner

The planning and collection of samples of student work,



anecdotal notes on students' use of feelings words, my mentor's observational notes, daily observations, and my own reflection journal—all helped me move toward my ultimate goal of creating a full unit to help my students develop the social and emotional skills that would equip them to be effective problem solvers. Developing a peace corner was the obvious next step. Inspired by the model that I had observed during my first student teaching placement, I hoped to implement an enhanced version in my classroom.

I located our peace corner in a loft space in the back of the classroom that was used for dramatic play, because of the privacy it afforded. I furnished the loft space with a table and chairs for student conversations. On the table, I

placed a book of student drawings and words describing a problem-solving scenario as well as a five-minute sand timer to help regulate the pace of conversations. To track student attendance, I created a sign-in sheet attached to a clipboard with a pencil. In addition to these items, I posted anchor charts taken from our lessons and brainstorming sessions. On the loft's wall, I set up a feelings wheel. This arrangement seemed to be appropriate for creating a place that had the potential to support high-quality social and emotional learning.

Practicing peacemaking

Within a month of its introduction, the peace corner had been used by all the students in the class. In

the first 10 days alone, 71 percent of the class went there in pairs to solve problems. Data collected on children's usage suggests that the peace corner was especially effective for students like Alicia, who used the peace corner eight times with six different partners. I noted that during these first 10 days, six pairs of students left the peace corner seeming to feel validated and with their issues resolved. Students, often smiling, excitedly reported to me after their peacemaking sessions, debriefing me on their successes and challenges working through conflict. They then went on to work collaboratively during centers, writer's workshop, and math.

The peace corner supported positive change in the class in several ways. First, the students' dependency on me as an authority to stop conflict shifted. They began to ask for time to solve their problems themselves instead of asking me to solve problems for them. This made my teaching more effective because the time I spent on managing peer relationships dramatically decreased, enabling me to channel my focus toward learning objectives while spending more time supporting students' individual academic needs. Over the course of the two-week data collection period, I only found it necessary to help mediate twice, and both times it was because the students had already spent the maximum five-minute period discussing their problems independently.

Peacemaking in Action

The following two transcripts, chosen from several recordings and interviews that I did, provide a sense of how my students were embracing peace.

The first is a transcription of a peace corner conversation between Darian and Robert working out an issue from the basketball court.

Robert: I don't like when you say, "Oh, my gosh," because remember when we were playing outside and Ivan passed the ball to me and you said, "Oh, my gosh"? Um, he did the right thing because he shot and gave it to somebody.

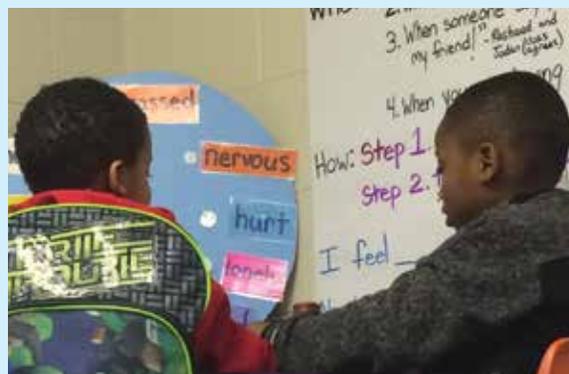
Darian: I didn't like when you were mad at me when I didn't give you the ball and I gave it to somebody else.

Robert: Well, I didn't like when you said, "Oh, my gosh." It makes my feelings hurt. Can you try to not say that again? But next time if I get the ball I'll give it to you, okay?

Darian: Next time if I don't give the ball and the ball goes off the rim, just try to get the rebound!

Robert: Okay. Next time maybe we could ask coach Andy if we can play change [a turn-taking adaptation to a standard basketball game] so you don't have to push me—remember when I had the ball and you pushed me and it came out of my hands? So try not to do that again, okay?

Darian: Okay. [Robert reaches his hand out for a handshake. Darian puts his hand out and smiles while they shake hands.]



The second excerpt comes from an interview with Darian and Robert after the session in the peace corner.

Teacher: What do you think about the peace corner?

Robert: People go in the peace corner and do their problems. So we can talk and we can say nice words, so we don't have to get angry.

Teacher: What about you, Darian?

Darian: I like the peace corner because we can come and talk about our feelings so we won't be sad.

The recordings and conversations convinced me that my students were learning to talk with each other. My next step was to help them work interactively and thoughtfully on interesting classroom problems. For this step, I chose the Marshmallow Challenge.

Talking and sharing as problem solvers

Drawing on the progress my students had made with social and emotional problem solving, and following Alfie Kohn's work regarding the dangers of

competition, I wanted to create an opportunity for my students to explore the essential elements of effective teamwork. The Marshmallow Challenge (Wujec 2015)—a timed group activity using limited materials to build a freestanding tower topped

with a marshmallow—seemed an appropriate vehicle for this. Although the challenge can be framed as a competition, I emphasized active listening and communication. I had faith in my students' ability to infer the larger purpose of the activity from my



instructions: “The goal is to use teamwork to make your towers as tall as you can in 18 minutes.” The implied purpose of the activity was for the children to work together as a team using listening skills, positive communication, persistence, encouragement, and reflection to identify what each team could work on to become more productive as a group.

In this phase of my inquiry, my focus was on identifying ways my kindergarten students used listening and communication skills for team building.

For this activity, seven-member teams are given 18 minutes to build the tallest freestanding tower they can, finishing with the marshmallow sitting atop the tower. They are allotted the following list of materials:

- 1 box raw spaghetti
- 1 bag of marshmallows
- 1 yard of string each
- 7 scissors
- 1 yard of masking tape each
- 1 timer

As they worked, I listened to the team members interact:

Sophie: Hurry, guys! We are gonna lose! We only have 10 more minutes!

Amir: Guys! This is not a competition! No one wins. No one loses.

On completion of the challenge, I asked teams to reflect on their process, naming what helped their team and what hurt their team’s performance. Below is a discussion from the group reflection:

Teacher: What were some of the challenges your team faced today?

Mary: When we were trying to build our tower, I noticed that Jaylan couldn’t get the tower to stand up because she wasn’t believing in herself.

Teacher: Jaylan, what do you think about what Mary said?

Jaylan: She is right [*smiles*]. I was feeling very frustrated because I tried to get the tower to stand up, but it kept falling and I just thought I couldn’t do it, so I wasn’t believing in myself.

Teacher: It’s really important that you realized you were feeling so frustrated. Sometimes if we have a feeling and we don’t know what it is or how to talk about it, it can be very scary. Mary, how do you think your teamwork would change if Jaylan believed in herself?

Mary: If she just believed in herself and said, “I can do it,” then the tower would have been able to stand up.

Jaylan: Yeah. Next time I will do that.

Both of these exchanges suggest that the children have embraced the difficulties of the challenge without self-defeating mentalities. When Jaylan didn’t believe in herself, a peer reminded her of the value of having self-confidence in order to succeed. Jaylan and Mary were able to reflect on their performance together without punishing each other for their trials during the activity.

Amir had previously shown very low self-esteem throughout the year. He had said things like “I’m the dumbest one in class” and “I’m not as good as the people on my team.” Reminding his team that the challenge was not about competition shows remarkable growth and a

positive change in Amir’s belief about himself and about how success can be measured.

One of the most interesting parts of this activity for me was that my intentional choice not to mention the words *competition*, *win*, or *lose* during my lesson—the only change I made to the facilitation of the Marshmallow Challenge model—seems to have helped students appreciate each others’ strengths, efforts, and contributions as team members. In the long run, these shifts may have improved morale and sportspersonship during group activities.

Conclusion

For me, this experience suggests the enormous potential of developing children’s communication skills to support social and emotional well-being in early childhood classrooms. I learned how important it is to create an environment in which children can be successful as problem solvers. Giving my students words to help them describe their feelings was critical to making this happen, but so, too, was implementing the strategies that I had seen in my first placement and heard about from my peers.

After I completed this project, the principal said that the model of peacemaking we had developed in



the kindergarten was so successful that the school would begin implementing it on the playground the following school year. I, of course, cannot take full credit, because I was recreating a system inspired by another teacher in another school, but knowing that

Thoughts About the Article | Frances Rust, *Voices* Executive Editor

In his seminal study of schools and teaching, *Life in Classrooms*, Philip Jackson (1968) wrote,

Three important facts a child must learn to deal with in a classroom involve crowds, praise, and power. First, the student has to learn to live amongst a crowd. Many of the classroom activities will involve being in a group or in the presence of a group. A student’s quality of life can depend greatly on how well he works amongst a crowd. (p. 9)

In this article, Holly Dixon examines this fact of learning to live in a crowd—a hard concept for children just emerging from an egocentric focus in Piaget’s preoperational stage. Using puppets, the peace corner, and the marshmallow challenge, Holly explores how a group of kindergarten students in a Philadelphia public school learn to share resources, gain the ability to conform to a schedule, and build the resilience essential for taking turns.

Holly’s study was undertaken as part of her master’s program. Her insights about creating an environment that enables children to become problem solvers informed her own practice—something that teacher research invariably does. What was completely unexpected was how the children’s embrace of peacemaking inspired other teachers and the school principal to carry the peace corner forward as a core practice of the school.

peacemaking would carry on is really exciting. I now see that even seemingly small interventions that work for students and teachers can catch on little by little and lead to a widespread change in the mind-sets of teachers, schools, administrators, and policy makers.

I know it isn't easy for teachers to engineer a set of activities like this—particularly in the highly stressful, underresourced environments that so many encounter now—but studying our work and sharing with others means that we are no longer alone in our classrooms. We can be a community of learners studying how to create more peaceful and inclusive classrooms.

References

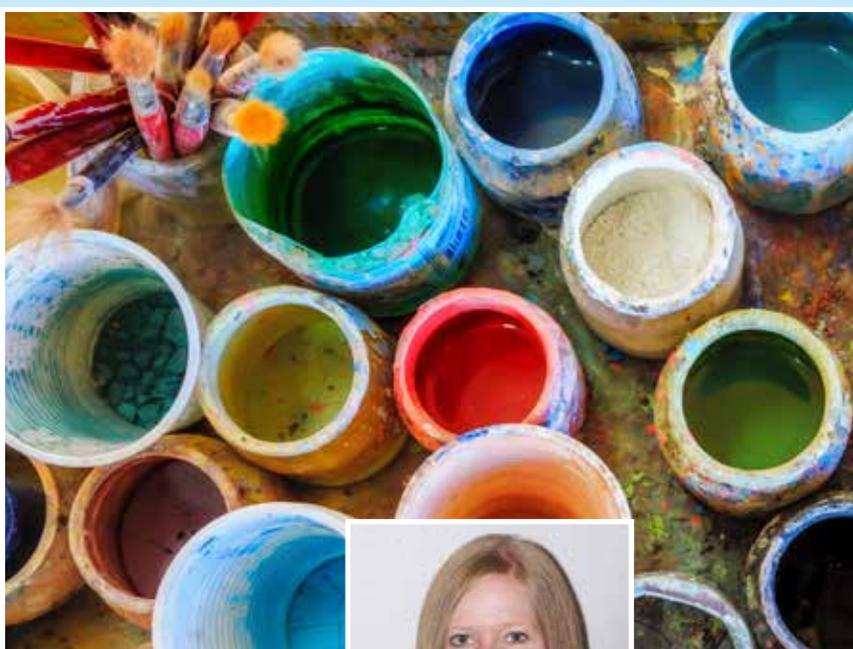
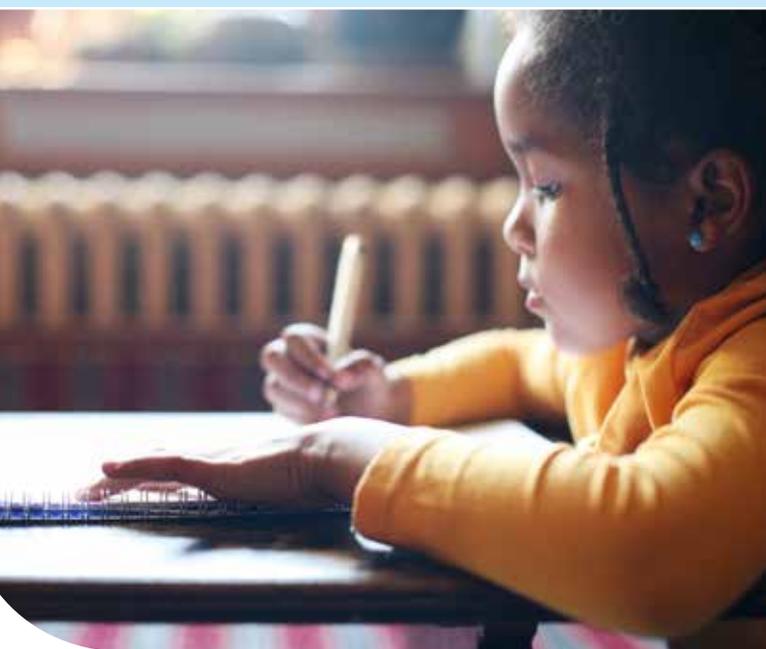
- Edwards, C., L. Gandini, & G. Forman, eds. 2011. *The Hundred Languages of Children: The Reggio Emilia Experience in Transformation*. 3rd ed. Westport, CT: Praeger.
- Gardner, H. [1991] 2011. *The Unschooled Mind: How Children Think and How Schools Should Teach*. 20th Anniversary ed. New York: Basic Books.
- Grist, N. 2009. "Understanding the VAK Model and Its Application." London: City and Guilds Centre for Skills Development.
- Jackson, P.W. 1968. *Life in Classrooms*. New York: Holt, Rinehart, & Winston.
- Kohn, A. 1987. "The Case Against Competition." *Working Mother* 10 (9): 90–95. www.alfiekohn.org/article/case-competition.
- Maslow, A.H. 1943. "A Theory of Human Motivation." *Psychological Review* 50 (4) 370–96.
- McLeod, S.A. 2016. "Maslow's Hierarchy of Needs." *Simple Psychology*. www.simplypsychology.org/maslow.html.
- Prashnig, B. 2005. "Learning Styles vs. Multiple Intelligences (MI): Two Concepts for Enhancing Learning and Teaching." *Teaching Expertise* 9: 8–9. www.creativelearningcentre.com/downloads/ls_vs_mi_tex9_p8_9.pdf.
- Tomlinson, C.A., & J. McTighe. 2006. *Integrating Differentiated Instruction and Understanding by Design: Connecting Content and Kids*. Alexandria, VA: Association for Supervision and Curriculum Development.
- Wujec, T. 2015. "Marshmallow Challenge." www.tomwujec.com/design-projects/marshmallow-challenge.

Photograph: p. 37, © iStock; pp. 30, 32, 33, 34, 35, 36, and 38, courtesy of the author

Copyright © 2016 by the National Association for the Education of Young Children. See Permissions and Reprints online at www.NAEYC.org/yc/permissions.

Teacher Inquiry on the Influence of Materials on Children's Learning

Rachel Schaefer



While considering teacher research topics, I became interested in project-based learning, an approach that emphasizes children's active participation as they investigate and study real-world questions and challenges. As I focused my research and worked with my early childhood education professors, I developed a definition that I, as an educator, felt described what an investigation entailed: *An investigation is an inquiry that takes place over an unspecified amount of time, in which children and teachers act as protagonists in their learning to make discoveries of their own wonderings.* After reflecting with my professors, I chose to concentrate my research specifically on materials and their role in investigations. I formed my research question:

In what ways do classroom materials influence learning?

I hypothesized that as children manipulated the materials, becoming familiar with them through experimentation, they would participate in a deeper investigation. Using teacher research, I studied how different classroom materials influence learning.

Rachel Schaefer, MS, is a kindergarten teacher with the Elkton School District in South Dakota. Past teaching experiences include three years as a mentor teacher at the Fishback Center for Early Childhood Education at South Dakota State University and two years as a full-day preschool/ junior kindergarten teacher.

Review of the literature

Sobel (2005), Smith (2002), and others, when describing place-based or science education, use the term *investigations* when real-world problem solving in the community occurs as the world becomes the classroom. Siry, Ziegler, and Max (2012) use the term *investigations* when describing young children's explorations of science-based inquiry experiences. The inquiry process offers a multitude of benefits to children as they engage in their own exploration and take ownership of their learning. Children develop their own questions, make predictions about possible hypotheses, examine ways to test their theories, find ways to represent their findings, and solve problems through trial and error (Clark 2006).

Schools following the Reggio Emilia approach rely on a type of

investigation as well. They describe *progettazione* as a more global, flexible approach in which initial hypotheses are made by children about classroom work but are modified or have directional change as the investigation progresses, incorporating the "otherness" of those engaged in the work (Rinaldi 2006). Frequently, small groups of children work together to study, discuss, explore, and hypothesize about a topic (Project Zero & Reggio Children 2001).

Projects, as Helm and Katz (2010) call them, have been said to be the backbone of children's and teachers' learning experiences as they follow the inquiry learning process. Projects can take on many different forms, whether a day spent investigating bugs on the playground or a yearlong study of a tree changing through the seasons.

How children learn

Piaget (2000) proposed that children learn by actively constructing their own knowledge

and creating their own theories. Children learn best when they are creating their own understanding of how things work. A child comes to know something by physically or mentally acting on it (Piaget, Henriques, & Ascher 1992). Projects, investigations, and a more encompassing term, *inquiry-based learning*, provide the opportunity for these meaningful, hands-on experiences to occur.

During inquiry-based learning, children apply their current understandings to new encounters in their environment. If their previous knowledge allows them to fully understand the event, new understandings emerge and the children progress to a more advanced cognitive level (Duckworth 2006).

Vygotsky stressed the importance of the internal process—that is, the thinking or internal dialogue that assists children in solving a conflict or creating an object rather than the actual solution or creation of an object itself (Wertsch 1985;

Thoughts About the Article | Andy Stremmel, Voices Executive Editor

Rachel Schaefer's inquiry focuses on the ways classroom materials influence learning and their role in investigations. Much of what we know about how children construct knowledge and understanding through the use of materials comes from the theories of Piaget and Vygotsky and the work of academic researchers. Here we have a teacher who uses methods of inquiry common to classroom teaching (e.g., conversations with other teachers, observations of children interacting with materials, opportunities for written and verbal reflection) and who involves a group of student teachers to study questions of meaning and to help her think through her research process. Rachel demonstrates how one goes about asking questions, hypothesizing, reflecting, gathering and analyzing data, and using what has been learned to think about her teaching and children's learning in new ways.

The addition of the parallel voice of Rachel's mentor, Kay Cutler, to provide a commentary on Rachel's learning, adds a critical and insightful perspective on the value of teacher research.

Fernyhough 2008). When children work together using inquiry-based learning, they share the thinking and learning that happens during the investigation (Project Zero & Reggio Children 2001; Krechevsky et al. 2013).

Relationship between materials and environment in children's learning

According to Vygotsky ([1930–1935] 1978), the types of materials teachers choose for children to use mediate children's development of higher mental processes. In addition, how and where materials are placed in the environment influences how children can use those materials (Kozulin et al. 2003). Furthermore, experiences with materials shape the development of shared meaning between individuals, giving shared meaning to symbolic cognitive tools such as letters, numbers, or words.

Open-ended materials offer meaningful ways for children to deepen their understanding of a concept, build creativity, and heighten their cognitive abilities (Daly & Beloglovsky 2015). When children use different materials (clay, wire, etc.) to explore the same concept, they learn more about the concept because of the affordances that each medium possesses. Foreman (1994) defines *affordances* as “the relationship between the transformable properties of a medium and the child's desire to use that property to make symbols” (4). Some mediums are better than others when representing a concept, because of both the child's ability to manipulate the medium

and the medium's potential to symbolize the concept.

The hundred languages concept, which originated in the early care and education systems in Reggio Emilia, Italy, takes the idea of affordances a step further in its assessment that the set of affordances a material has to offer “has the ability to take on expressive aspects and meaning comparable to a verbal language ... [which is] foundational to the pedagogy of Reggio Emilia” (Schwall 2015a, 49). Materials can become inventive languages only as children develop relationships with the materials—relationships that develop over an extended period of time (Schwall 2015b) when the materials are intentionally placed in the environment.

Once children have developed a relationship with materials over time, they find new ways of using them (Hill, Stremmel, & Fu 2005; Daly & Beloglovsky 2015; Schwall 2015a). Children experiment, investigate, and form hypotheses about the materials' potential uses. In an inquiry-based learning environment, these hypotheses about materials' uses can then spur children on to make creative connections about their topic of inquiry (Cadwell, Geismar Ryan, & Schwall 2015).

Acting as a third teacher, the environment plays an essential role in inquiry-based learning. As explained by Reggio Emilia educators, the environment acts both as a “container” for experiences and as “content” for exploration and investigations (Abramson,

Robinson, & Ankenman 1995). The relationship between materials and the environment is complex. The decisions teachers make about the placement and collections of materials in a classroom or studio space influence how children perceive and use the materials (Schwall 2015).

Methods

For the purpose of this study, I conducted a teacher research project over the course of three months that focused on the different ways classroom materials influence learning, as the children investigated faces and expressions. The children's investigation originated from their interest in a teacher-directed self-portrait activity.

Setting

I collected data from the afternoon classroom of 4- and 5-year-olds at a midwestern university laboratory school. There were 18 children in the class, 6 boys and 12 girls. In addition to myself as the mentor teacher, four student teachers worked in the classroom and rotated lead teaching responsibilities each week (creating lesson plans, setting out materials, etc.). Each student teacher continually observed and analyzed the influence of classroom materials on learning. The three professors I had worked with to develop my research question became an inquiry group that met with us to aid us in our analysis.

Procedure

Throughout the study, I met with the student teachers daily to discuss our observations. To help us think critically, the inquiry group joined us during weekly meetings to review our observations and reflections. The inquiry group also read the teachers' daily anecdotal records, our teacher discussion records, and my own reflections and journaling. Our methods for data collection were as follows.

- Individual teacher reflections. Teachers journaled their observations of children's interactions with the materials weekly.
- Anecdotal records. Teachers recorded children's conversations about their experiences with the materials, discoveries they made while exploring, and conversations they had with one another while using the materials.
- End-of-the-day meetings. At the end of each day, teachers met to discuss the day's events and our insights about the children's learning and use of materials. We, along with the inquiry group, recorded and analyzed these conversations for insights into recurring themes of how children used the materials throughout the week and the impact this usage had on their investigations.
- Group teaching reflections. Teachers reflected during weekly meetings and dialogue with the inquiry group on the choices they made regarding materials, as well



as other aspects of teaching, throughout the week.

5. Integrating parts of a previous activity into a new activity helped children transition to the new method of investigating.

Findings

While analyzing the data, we found five common themes, or findings.

1. The number of materials within an area affected the children's investigation.
2. The children's prior experience with materials influenced how they used them.
3. Teachers were able to influence the children's use of materials with commentary and questions.
4. The amount of time the materials were offered impacted children's investigation.

Findings from the investigation with an assortment of media

Self-portraits. As the children used colored pencils and paper to create self-portraits while looking into handheld mirrors, we observed many children drawing basic facial features such as eyes, mouths, and hair. Most children initially used colors randomly rather than using colors to accurately represent their eye or hair color. Despite this lack of attention, children had a high interest in the self-portrait activity. We extended this provocation by



Here is one student teacher's reflection on the materials the children preferred when creating their self-portraits:

"When I look at the art area, I see the children interested in various things. Looking at what they have done while working on faces, it is very evident that the children like to draw their faces instead of using magazine cuttings. While they are drawing, they are focused ... The children compare their drawings with one another's and ask the teachers and other children what they need to add to their pictures."

encouraging the children to create faces that expressed different emotions.

Collage faces—and the first finding. We replaced the materials for drawing self-portraits with magazines from which children could cut out different facial features and assemble them into faces. Our hope was that this activity would help the children pay closer attention to facial features. The materials we chose to support this activity included magazines, scissors, glue, multicultural construction paper, crayons, yarn, mirrors, and two referent images assembled by the teachers.

The children took the activity in a different direction by cutting out miscellaneous objects unrelated to faces and gluing them to the paper. Some children drew faces on the paper and then added yarn to represent hair, like that on a reference image, or cut out an entire face and glued it on a piece of construction paper. The children repeatedly left the area unorganized. At this point our first finding emerged: the number of materials in an area affected the children's investigation. We realized that if we put out too many materials, the children became overwhelmed and would not visit the area.

A return to self-portraits. Next, as a teaching team, we webbed possible directions that the children's investigation could take: we considered physical attributes and facial expressions in relation to emotions, and we considered children's previous knowledge about each of these directions, based on our observations. As interest continued, we replaced the magazine activity with the self-portrait activity and the materials from the previous week.

As we looked through the self-portraits to complete a class assessment of the children's individual knowledge of facial features, we noticed that the majority of the drawings had

The student teachers and I reflected on our observations about painting on the observation booth mirrors.

Teacher One: First, let's talk about what everyone observed from yesterday. Let's start with the painting.

Teacher Two: I don't think [the children] were really doing anything that we thought they would do ... They aren't really doing their reflection. Maybe if we wanted them to actually trace their face, we could find a way to use colored pencils because then they could add more detail.

Teacher One: I know this is something we talked about in the booth, too. The paint was so thick ... it was a lot harder for them to draw in those details.

Teacher Three: But they used small brushes, which helped.

Teacher Two: It still would cover half of your face with one stroke.

Teacher One: I know that they didn't use the mirrors as we hoped. And just looking at the sizes of what they were drawing was not congruent with their faces.

basic features but not much detail (i.e., children drew circles for eyes with dots in the middle but did not include eyelashes, irises, eyebrows, etc.). We also noticed that the children didn't use the mirrors as much as we had hoped.

Smaller paintbrushes and the observation booth. As the next step in the children's investigations, we introduced paint as a medium for self-portraits. For this activity, children used paint to draw over



their reflections on an observation booth mirror that was a part of our classroom. Although children were familiar with paint as a medium, the observation booth mirror was an unfamiliar canvas. We hypothesized that because the mirror would be directly in front of the children, they would pay close attention to their own facial features (including the size) and draw the features to match their own.

The materials we chose to support this activity included paint, small paintbrushes, the observation booth window, smocks, garbage bags, and hollow blocks for children to use as a platform to stand on. We limited the amount of paint because we did not want the children to become overwhelmed. We chose multicultural colors and yellow and blue so the children could mix colors.

As we observed, we noticed that although the children could see themselves in the mirror, many did not paint themselves to scale. We wondered whether the paintbrushes and paint made it more difficult for children to draw details than the colored pencils and crayons they had been using for previous activities. The children included facial attributes, but they did not choose colors to match their features. Many children appeared hesitant to paint on the mirrors. We wondered what would happen if we left the activity out all week.

Light table. At the same time the children were painting, a light table was also available. We had taken photos of the children and enlarged them so that they could explore their eyes, noses, and mouths, using markers to trace around and color in their features. When observing the light table, I saw few children visiting. At the time, the light table was up high, sitting on top of another table, because its legs were broken, making it difficult to access. One child really struggled to reach the materials but still managed to trace around the eyes of her photo carefully. When she finished tracing, she scribbled in the rest of the eye. I wondered whether this was because she became frustrated or whether her intention was to color the eye's iris. We agreed it was important to make the light table more accessible and discussed using colored pencils instead of markers because colored pencils allowed for more detail.

Clay—and two more findings. During the first weeks of preschool,



the art area had clay for the children to explore. The clay was hard and not easy to manipulate, so we had children add water to the clay to soften it. When we reintroduced more malleable clay during the investigation, we noticed the children still wanted to add water to it, despite the fact that it was softer and easier to manipulate. Upon evaluating this observation, our inquiry group noticed the second finding: children's previous experience with the materials influenced how they used the various media.

To further our research on how children were using the clay, we felt it would be necessary to post teachers in the area, dialoguing with the children about the processes of creating a self-portrait, expressions, and facial features. The next day, after asking children to join me in the clay area, I sat down and began talking about flattening my clay so I could "draw" on it. The children in the area with me asked if they could use a rolling pin to flatten their pieces.

One girl sitting at the table with me began to draw the same face I was drawing. We discussed the shape

of noses and how to draw them. She added nostrils, something I had not added. Another girl created a silly face out of her flat piece of clay. She told me it was silly because of the way she had made the mouth (which was a straight line). From past experiences with her, I knew that when she made a silly face, she would put two fingers on each side of her mouth and pull, causing her mouth to go straight.

Following this scaffolding experience, our inquiry group continued to dialogue about our processes, which led to our third research finding: teachers can influence how children use materials through commentary and questioning (a form of scaffolding) while children use materials.

Inquiry group dialogue and two more findings

While the teachers and I were discussing our observations and reflections with the inquiry group, a fourth finding soon emerged: when integrating a new activity in the children's investigation, purposefully pairing parts of the "old" activity with the "new" activity scaffolded the children's confidence in exploring the new activity. For example, we would consistently use paint but change what the children would use as a canvas.

A fifth finding that emerged was that the amount of time the materials were in an area impacted the children's investigation. When the children explored the same materials for a long time, their representations became more

detailed. We had tempera paint and an eye template in the art area for several weeks. As the children used the materials daily, they gradually added more details to their eyes, such as eyelashes. The children also began to mix paint independently to match their actual eye color.

Familiar materials promote detail

As the semester ended, we were curious to know what would happen if we asked the children to draw a picture of a friend. As a culminating event, we paired each child with a friend and asked them to draw one another. We provided familiar materials—colored pencils and paper. As the children drew



their friends, we found that the children were very particular about how they were drawn. One girl said to another, "You don't have the right colors," referring to her hair. A boy said to his partner, "You need ears. See, I have ears." Many children paid attention to specific

details such as the size of the mouth (“I’m only making it this big because her lips are small.”). The children also began making comparisons to one another, saying things such as, “Rebekah has longer hair than I do. My hair is about to my shoulder.” The children paid attention to the colors they chose, using yellow to represent blonde hair and blue to represent the color of the iris.

Limitations

There are limitations to this study. The study was conducted over a short amount of time (approximately three months). Because the study was completed in a laboratory setting, some student teachers may have been too immersed in learning the basics of teaching to be able to focus energy into the depth of this study. This was the first experience with a teacher research project for most of the student teachers.

Conclusions and discussions

Forming a question about the influence materials have on learning led to meaningful teacher research that changed the way I teach today. I am now a kindergarten teacher, and when I introduce new materials to my classroom, I give children time to explore and build relationships with the materials. I watch closely and reflect on how children use materials when the materials are first introduced and how the use

of materials evolves along with children’s learning. My teacher research shaped this perspective.

New questions

Although I was able to find answers to my original question, I have developed more questions as a result of conducting my teacher research. I now wonder which of these themes had the greatest impact on children’s investigation. I also wonder how the different themes influenced one another. For example, did the questions teachers asked children influence the way the children used the materials more than having materials available for a prolonged period of time? Moreover, what would have happened if we had allowed the children to take more of a role in choosing materials? Would they have visited an area more because they were part of the decision making?

Last, what other media could have been introduced? We focused primarily on materials for drawing and painting. While children became familiar with the affordances of these materials, what would they have done if we introduced them to something like wire? How much time would they have needed to become familiar with its affordances? What would be a sufficient amount of time for children to explore it? Is there such a timeframe? How do the children let you know that they are completely comfortable with a new medium?

While I continue to ask questions and reflect, I realize the importance of my study and the significance it can have on other early childhood educators and myself in future teaching endeavors. I understand the role that materials play in curriculum development and investigations. This newfound knowledge, as a



result of my teacher research, is something I will carry with me for the rest of my teaching career. The process of teacher research has greatly enhanced my abilities as a teacher and continues to significantly impact my daily teaching practices.

References

- Abramson, S., R. Robinson, & K. Ankenman. 1995. "Project Work With Diverse Students: Adapting Curriculum Based on the Reggio Emilia Approach." *Childhood Education* 71 (4): 197–202.
- Cadwell, L., L. Geismar Ryan, & C. Schwall. 2015. "The Atelier: A System of Physical and Conceptual Spaces." Chap. 10 in *In the Spirit of the Studio: Learning From the Atelier of Reggio Emilia*, 2nd ed., eds. L. Gandini, L. Hill, L. Cadwell, & C. Schwall, 111–34. New York: Teachers College Press.
- Clark, A. 2006. "Changing Classroom Practice to Include the Project Approach." *Early Childhood Research and Practice* 8 (2). <http://ecrp.uiuc.edu/v8n2/clark.html>.
- Daly, L., & M. Beloglovsky. 2015. *Loose Parts: Inspiring Play in Young Children*. St. Paul, MN: Redleaf.
- Duckworth, E. 2006. *The Having of Wonderful Ideas: And Other Essays on Teaching and Learning*. 3rd ed. New York: Teachers College Press.
- Fernyhough, C. 2008. "Getting Vygotskian About Theory of Mind: Mediation, Dialogue, and the Development of Social Understanding." *Developmental Review* 28 (2): 225–62.
- Foreman, G. 1994. "Different Media, Different Languages." Paper presented at the Study Seminar on the Experience of the Municipal Infant–Toddler Centers and Preprimary Schools of Reggio Emilia in Reggio Emilia, Italy. ERIC, ED375932.
- Helm, J.H., & L. Katz. 2010. "Projects and Young Children." Chap. 1 in *Young Investigators: The Project Approach in the Early Years*, 2nd ed., 1–11. New York: Teachers College Press.
- Hill, L.T., A.J. Stremmel, & V.R. Fu. 2005. *Teaching as Inquiry: Rethinking Curriculum in Early Childhood Education*. New York: Pearson Education.
- Kozulin, A., B. Gindis, V.S. Ageyev, & S.M. Miller. 2003. *Vygotsky's Educational Theory in Cultural Context*. New York: Cambridge University Press.
- Krechevsky, M., B. Mardell, M. Rivard, & D. Wilson. 2013. *Visible Learners: Promoting Reggio-Inspired Approaches in All Schools*. San Francisco: Jossey-Bass.
- Piaget, J., G. Henriques, & E. Ascher. 1992. *Morphisms and Categories: Comparing and Transforming*. Trans. T. Brown. Hillsdale, NJ: Erlbaum.
- Project Zero & Reggio Children 2001. *Making Learning Visible: Children as Individual and Group Learners*. Reggio Emilia, Italy: Reggio Children.
- Rinaldi, C. 2006. *In Dialogue With Reggio Emilia: Listening, Researching, and Learning*. New York: Routledge.
- Schwall, C. 2015a. "The Grammar of Materials." Chap. 6 in *In the Spirit of the Studio: Learning From the Atelier of Reggio Emilia*, 2nd ed., eds. L. Gandini, L. Hill, L. Cadwell, & C. Schwall, 49–62. New York: Teachers College Press.
- Schwall, C. 2015b. "The Atelier Environment and Materials." Chap. 7 in *In the Spirit of the Studio: Learning From the Atelier of Reggio Emilia*, 2nd ed., eds. L. Gandini, L. Hill, L. Cadwell, & C. Schwall, 63–80. New York: Teachers College Press.
- Siry, C., G. Ziegler, & C. Max. 2012. "'Doing Science' Through Discourse-in-Interaction: Young Children's Science Investigations at the Early Childhood Level." *Science Education* 96 (2): 311–26.
- Smith, G.A. 2002. "Place-Based Education: Learning to Be Where We Are." *Phi Delta Kappan* 83 (8): 584–94.
- Sobel, D. 2005. *Place-Based Education: Connecting Classrooms and Communities*. 2nd ed. Great Barrington, MA: The Orion Society.
- Wertsch, J.V. 1985. *Vygotsky and the Social Formation of Mind*. Cambridge, MA: Harvard University Press.
- Vygotsky, L.S. [1930–1935] 1978. "Interaction Between Learning and Development." In *Mind in Society: The Development of Higher Psychological Processes*, ed. and trans. M. Cole, V. John-Steiner, S. Scribner, & E. Soubberman, 79–91. Cambridge, MA: Harvard University Press.

Read "The Journey Into Inquiry-Based Learning," Kay M. Cutler's Parallel Voices commentary to this article.

Photographs: pp. 40, 43, 44, and 47 © iStock; pp. 45 and 46, courtesy of the author

Copyright © 2016 by the National Association for the Education of Young Children. See Permissions and Reprints online at www.NAEYC.org/yc/permissions.

Commentary on the teacher research of Rachel Schaefer

The Journey Into Inquiry-Based Learning

Kay M. Cutler

Rachel Schaefer's study of early childhood education—both her undergraduate and graduate schooling—occurred at a time of philosophical change in both the early childhood education program and the on-campus laboratory school at the midwestern university where she earned her degrees. The philosophical changes included moving the laboratory school to a more Reggio-inspired, inquiry-based program and embedding inquiry-based content and assignments into the teacher preparation courses. The lab school, with children ranging in age from 15 months to 6 years had just begun to explore Reggio-inspired practices as Rachel enrolled in undergraduate courses. During the lab school's six years of transition to a culture of inquiry-based learning, the lab school team struggled with our perspectives on teaching by "recasting our image of the teacher and reevaluating the process of teaching and learning"—that is, defining what it means to teach using inquiry-based practices (Cutler et al. 2009, 404). Rachel's struggle paralleled this journey as she wrestled with whether to adopt an inquiry-based mindset, and then with how inquiry can "look" in a classroom setting and how to refer to inquiry—project, investigations, long-term investigation, or inquiry. While the center was building a culture of inquiry, the graduate professors were launching a culture of teacher research and challenging the graduate students to use teacher research as an approach to their thesis work. Rachel was one of the first in her cohort to accept this challenge.

As Rachel's thesis advisor and the director of the laboratory school, I had the opportunity to watch her growth over time. Rachel's image of the teacher when entering the undergraduate teacher education program included a very traditional methodology of teaching in which the teacher imparted knowledge and controlled how the students responded. Her first concern, as she considered using an inquiry-based learning methodology, was whether she was willing to give up the control offered by a traditional teaching approach. As she moved through her first year of graduate school, I believe her initial question "Do I want to give up this control?" was reframed as "What control do teachers have in inquiry-based learning and what does it look like?"

Observing Rachel throughout her graduate school experience was fascinating because her questions were often right there at the surface. She and her fellow

Kay M. Cutler, PhD, is the director of the Fishback Center for Early Childhood Education, and a professor in teaching, learning, and leadership at South Dakota State University, in Brookings, South Dakota. Kay has taught in higher education for 20 years, studied Reggio-inspired practices and inquiry-based learning for 16 years, and values working with new teachers who are tackling complex methods like incorporating teacher-research into their practices.

graduate students began to value open dialogue and often engaged in challenging discussions with one another that shifted their perspectives toward inquiry-based practices. This ongoing dialogue also made a space to challenge some of the center's ongoing practices that were seen as absolutes. For example, as the lab school began studying Reggio-inspired practices, the lab school teaching team questioned the role of small groups and at one point removed small groups from their schedules (Cutler et al. 2009). Then, as inquiry became more of an infused practice, small group learning was the strategy of choice for inquiry. Typically, the small groups met in smaller rooms throughout the center for focused discussions or interactions. Rachel and the student teachers, however, made a space in their dialogue to question, to examine, and to study the role of small group learning that occurred outside the classroom versus inside the classroom and began to meet as small groups within their classroom time, as well. This found freedom provided a place for inquiry both with the children's learning and with the teacher candidates' learning.

As Rachel established a mind-set for open dialogue and felt comfortable questioning even established practices, she engaged with inquiry-based learning and teacher research head on. She became passionate about studying inquiry-based learning and all that it had to offer. Looking back, I often wondered what it was for Rachel that brought about this change. While planning and preparing this reflection, I asked Rachel if she had any insights into what caused the shift or what had caused her to be less reserved and fully engaged. She could not pinpoint one exact time, but she recalled two events that helped spur her on. Early in her graduate career, Rachel attended a St. Louis Reggio Collaborative conference hosted by Clayton's Family Center, the St. Michael School, and Webster College School. This conference keyed her into the many, many different ways of working with inquiry. She attended this conference with three fellow students—two graduate students from her cohort and an undergraduate student. Coming back from this conference, Rachel had the mindset of possible change and held further conversations with her teaching team about the different aspects of inquiry-based learning.

During the summer before her second year of graduate work, Rachel attended the Boulder Journey School's Summer Conference. That year, their summer conference presented the school's previous years' work with materials. Their presentations influenced Rachel's thinking about the role of materials in the early childhood classroom in general, and about how the characteristics or affordances of materials could influence the children's experiences and the materials' role in inquiry-based practices (Forman 1994). That experience provided a springboard for Rachel to closely examine the process of choosing materials. Her work in the laboratory school as a mentor teacher provided an ideal opportunity to study materials through a teacher research approach. As a result, Rachel completed one of the first successful teacher research studies at the graduate level for the laboratory school. She studied many aspects of materials, from place and quantity to cultivating detail using different materials.

Rachel's work with materials is different from other studies or books about materials because these often focus on the selection and placement of materials (Curtis & Carter 2003; Curtis & Carter 2008; DeViney et al. 2010). Her work focuses on how children interact with the materials' selection and placement, noting learning

outcomes as well as her teaching team's response to children's interactions. Therefore, in a sense, her study takes a step beyond current work on the selection and placement of materials in the classroom. Setting up the classroom materials well is extremely important; but capturing the response cycles of children and building on their responses highlights the process beyond the initial setup.

Rachel's study highlights the implementation of the role of participant-researcher that Schon (1983) focused on in his work of reflective practitioner. Moving between the roles of teacher and participant-researcher is at the heart of being a reflective practitioner. Furthermore, Rachel highlighted the process of coresearching with children, rather than providing research on children. In her study, the children became coresearchers by interacting with the materials, and the teachers' noticing the nuances of influence that material placement and selection had when used by children.

Working with Rachel throughout her graduate work was enriching for me. Her developed stance toward inquiry spurred me to question other established practices and to have more of an open mind regarding inquiry in general. Her study of materials has influenced how the center's teaching team uses materials and strives for children to use or create more details in their work. It mapped out how children respond to materials' selection and placement and highlighted teachers' need to focus on this response. It has also influenced a line of teachers studying at the laboratory school after Rachel, as her teacher research results have been woven into the undergraduate methods and materials course. Her research about materials has become a topic of study for undergraduate inquiry-based projects in the lab school.

For Rachel, I have seen a change in how she focuses on learning both in her past roles at the local Boys and Girls Club and now as a kindergarten teacher in a local school district. Inquiry-based learning and materials selection are still an important focus as she teaches. Finally, her materials study was an affirmation that the laboratory school team and graduate professors, together, had cultivated a culture of inquiry.

References

- Curtis, D., & M. Carter. 2003. *Designs for Living and Learning: Transforming Early Childhood Environments*. St. Paul, MN: Redleaf.
- Curtis, D., & M. Carter. 2008. *Learning Together With Young Children: A Curriculum Framework for Reflective Teachers*. St. Paul, MN: Redleaf.
- Cutler, K., D. Gilkerson, M. Bowne, & A. Stremmel. 2009. "Change Within a Teacher Education Program and Laboratory: A Reflective Commentary." *Journal of Early Childhood Teacher Education* 30 (4): 404-17.
- DeViney, J., S. Duncan, S. Harris, M.A. Rody, & L. Rosenberry. 2010. *Inspiring Spaces for Young Children*. Silver Spring, MD: Gryphon House.
- Forman, G. 1994. "Different Media, Different Languages." Paper presented at the Study Seminar on the Experience of the Municipal Infant-Toddler Centers and Preprimary Schools of Reggio Emilia in Reggio Emilia, Italy. ERIC, ED375932.
- Schon, D.A. 1983. *The Reflective Practitioner: How Professionals Think in Action*. New York: Basic Books.

Implementing the Project Approach in an Inclusive Classroom: A Teacher's First Attempt With Project-Based Learning

Stacey Alfonso



Stacey Alfonso was teaching in an inclusion preschool in New York City, serving children with a range of special learning and developmental differences, when she conducted this research. As she strove to embrace the child-centered inquiry that is at the heart of the project approach (PA), she struggled with general expectations within her school culture that curriculum and instruction be teacher-directed, instead of cocreated with the children. Her teacher research makes a valuable contribution to the literature because she provides clear and believable examples of how PA worked for her children with special needs, as well as the challenges she faced due to the newness of the approach, her lack of mentors, and the varied learning strengths of the children. Stacey is especially effective in communicating the voices and work products of the children, showing how they are fully capable and eager to undertake inquiry and direct their own learning. Her trust in the children and joy at their discoveries provided a turning point in her career that informs her current teaching in a forest school.

—Barbara A. Henderson

Stacey Alfonso, [MSEd](#), is a lead teacher at Fiddleheads Forest School, a completely outdoor nature-based preschool program in Seattle, Washington. Stacey continues to search for inquiry-based methods to teach young children and help develop a love for learning.

One of the biggest challenges I faced during my years teaching in an inclusive prekindergarten classroom was differentiating instruction. I was constantly searching for methods to engage all children because having children with such a wide range of abilities and needs required me to offer varied outlets for learning. My school held to a theme-based curriculum with a strong backbone of structure to guide classroom activities and children's learning. I held to this as well, until, as I gained experience as an educator and learned more about child development, I began to question what I was doing and to seek alternative methods.

I wanted the children in my classroom to be motivated, authentically engaged, and excited to learn. I wanted them to take hold of their learning and drive their own experiences. While I have always believed that young children learn best through hands-on learning and have striven to make that a strong part of my classroom, I felt that their learning experiences should be more intimate and personal than I had been able to provide using a teacher-derived curriculum. I felt this could be best accomplished in an open-ended environment where children are free to explore and follow their own interests. But how could this be done within my school's current setting? How could I create such a shift in learning experiences without falling into

chaos and complication? I found my answer when I discovered the project approach.

The literature I read presented a pedagogy that would motivate and engage children with a diverse range of abilities, allowing them the freedom to explore their own interests yet still providing enough structure to fit into my school's current culture (Harris & Gleim 2008; Beneke & Ostrosky 2009; Katz, Chard, & Kogen 2014). My research question for this study was,

How can I implement the project approach within my inclusive classroom in a preschool that has a history of structured, teacher-driven curriculum?

Review of literature

John Dewey was among the first to suggest that one of the best ways for children to learn is by planning their own activities and implementing those plans, thereby providing opportunities for multilevel instruction, cooperative learning, peer support, and individualized curricular goals and learning experiences (Harris & Gleim 2008). Today, many teachers find that project-based learning supports children's self-motivation (Yuen 2009; Beneke & Ostrosky 2009; Harte 2010). Some see it as particularly successful in reaching a diverse range of interests and abilities (Harris & Gleim 2008; Beneke & Ostrosky 2009; Harte 2010). Others appreciate its

focus on and enhancement of problem-solving abilities (Yuen 2009) and critical thinking skills (Brewer 2010). More broadly, many educators see the project approach as empowering because children are active participants in shaping their own learning experiences (Harris & Gleim 2008; Harte 2010; Helm & Katz 2011).

Project approach: A brief overview

The project approach seemed to be a good fit with my goal of finding a new way to engage and intrinsically motivate the children in my classroom while meeting a wide range of needs. My research also suggested this approach would produce a well-organized curriculum and would be, seemingly, straightforward to implement. The project approach involves an in-depth investigation of a worthwhile and interesting topic developed through authentic questions (Helm & Katz 2011; Beneke & Ostrosky 2009; Mitchell et al. 2009; Katz & Chard 2013). Inquiry is a major emphasis, and so children focus on finding answers to their own questions (Harris & Gleim 2008). The teacher's role is to help children become responsible for accomplishing their work, to guide children to document and report their findings, and to provide children with opportunities to make choices along the way (Katz & Chard 2013; Katz, Chard, & Kogen 2014).

I was encouraged that the project approach guided teachers to use a specific three-phase design and hoped that this structure would ensure compatibility with my school's current culture.

During phase one, selecting a topic, teachers build common experiences for their class (Helm & Katz 2011), talk with children about their personal experiences, have discussions with the children in groups (Yuen 2010), determine children's interests (Helm & Katz 2011; Katz & Chard 2013), and help children organize ideas and articulate specific questions as a topic emerges (Mitchell et al. 2009).

Phase two, data collection, emphasizes meaningful hands-on experiences and is when children conduct the bulk of their project investigation. Children are researchers, gaining new information as they collect data to help answer their own questions. This phase of investigation takes place through direct and authentic experiences such as field trips, events, and interviews with visiting experts (Harte 2010; Katz & Chard 2013). Children can also gather data through secondary sources when relevant, including books, photos, videos, and websites.

Phase three, the culminating event, is a time to conclude the experience and usually includes "an event or activity that summarizes the findings of an investigation" (Mitchell et al. 2009). The children's role continues to be central; the class often holds discussions on what they have learned to create a

plan for sharing their insights and discoveries (Harte 2010).

Methodology and research design

After reading extensively about the project approach, I felt ready to implement it in my classroom.

Setting and participants

I conducted my study in a small private preschool on the Upper West Side in New York City. The school has a decades-long history in the neighborhood, and families have come to trust and love the educators there. The school's traditional curricular model of teacher-driven, thematic-based learning is also well established and, as far as I know, had not been previously challenged or adapted.

Study participants included 13 pre-K children, my two coteachers, and myself. Children had a diverse range of abilities. Seven children had significant sensory processing issues, two had severe cognitive and language delays, and four had mild language delays and/or mild sensory processing issues. Most children who enroll at the school can attend and participate independently, although some require one-on-one support with a therapist.

Data collection and analysis

Throughout the study, I collected and analyzed data through field notes, a reflective journal, children's work, and anecdotal records that included photos,

videos, and audio recordings. Field notes were my primary source of data, which I used to provide a day-to-day recollection of how the project-based curriculum affected the children. The Teacher Notes app on the iPad and iPhone helped me collect and analyze the field notes. I kept project planning journals using a notebook and the Evernote app on my iPad. These digital tools provided me with flexibility. Because they were accessible via iPad, iPhone, or computer, I was able to take ample notes and continually reflect upon my plans and implementation.

I collected work samples from the children of their writing, drawing, and artwork. The work samples were helpful in assessing progress and became an additional source for documenting children's growth in their participation throughout the project. Finally, I used videos, audio recordings, and photographs to document children in the process of working.

At least weekly, I read and reflected on my field notes to identify emerging themes. At least twice a week during my prep time I reflected on my journal in Evernote to help with planning. Additionally, I continually reviewed and organized children's work using Teacher Notes and listened to and watched audio and video recordings as they accrued, noting themes such as children using research terms or working independently to find answers to their questions.

Organizing and maintaining this ongoing analysis helped me

tremendously when it was time for a formal, summative analysis of my data. Using Teacher Notes, I was able to pull up applicable field notes and data sources in many different arrangements. I then printed out the notes and sorted them by hand, which provided me with a means of discovering the themes that best captured the scope of my findings.

Findings

As I had hoped, I saw the children happily engaged and enthusiastic about learning as we developed our project—a study of the neighborhood. However, the journey also came with challenges and surprises not recorded in the literature I had reviewed. My findings are organized into three themes: (1) children as researchers, (2) learning and growing through research, and (3) challenges with the culminating event.

Children as researchers

To allow the children to get to know their new school and to provide some practice with research skills, we began the school year with a mini teacher-led project about the school before starting our formal project. My coteachers and I introduced the words *research* and *investigate*. Soon, the children adopted this new vocabulary. For example, a question about our school kitchen led a child to excitedly report, “I investigated the kitchen, and I found ice cream!”

I found that children responded well to my intentional efforts to

honor their questions, including those that were not directly related to the project content at hand. For example, shortly after starting our neighborhood project, a group was working on a craft using glue sticks. One girl asked, “Why are there lines on this glue stick?” I took her question seriously and responded, “I don’t know, let’s find out.” She was completely engaged from this moment, and we made a plan to research her question. We decided to open her glue stick and look inside. She hadn’t expected me to embrace her question, and certainly not by suggesting a firsthand experience of discovery in which I allowed the destruction of the glue stick to honor her curiosity.

After a couple weeks, I found that children started to use the research vocabulary and inquiry approaches more independently. For example, we read a book and then discussed the similarities and differences between our neighborhood and the one in the book. One girl stated, “We don’t have a laundromat, I think. We don’t have it here because my mommy does it at home.” Another girl disagreed. Then a third child said, “We can take a walk and look.” I was elated to find the children’s independent conversations included a foundation on inquiry. The emphasis we had placed on helping children understand that they themselves could find answers to their questions had already made a difference. Thus, when this child suggested we go look for ourselves to see if our neighborhood included a laundromat, she exhibited

an understanding of how to investigate a question for herself.

In addition to finding answers from firsthand experience, the children learned that they could find answers from books. They initially needed guidance and leading questions to help them find secondary sources, but their abilities developed over time. For example, the children wondered what vehicles were around the neighborhood. In mid-September, a group of children sat in a park and tallied the vehicles they saw, including cars, taxis, buses, bicycles, trucks, and ambulances. Upon returning from this research endeavor, a child wanted to build a bus from clay. Without a teacher prompting, a friend of his went to the bookshelf to get a book that depicted a bus. They looked at the book together to understand the parts of a bus and then recreated them with clay. This shift was important, as it was becoming clear that children were conducting a form of research and doing so independently. Indeed, beginning in September, research had already become an important part of our classroom, and the children’s skills and range of approaches only grew throughout the fall.

Learning and growing through research

As much of the literature points out, an important aspect of the project approach is providing opportunities for children to participate in hands-on, meaningful experiences (Harris & Gleim 2008; Harte 2010; Helm



& Katz 2011.) What I found is that the children had continuous opportunities to learn and grow in all developmental domains as they were meaningfully engaged in the project that they had helped shape. Children investigated by taking teacher-organized walks in the neighborhood to answer questions that arose during casual conversations or teacher-facilitated group discussions. We avoided answering the children's questions for them and used our frequent walks to allow children to find their own answers and to build their inquiry skills.

One instance in which this inquiry was evident was when two girls independently extended an activity to create a big drawing of our neighborhood. The children's initial goal was to determine whether the neighborhood contained things like signs, fire hydrants, specific businesses, and trees, and we were able to verify those questions on

one of our walks. After the walk, the class collectively summarized what we had found by completing a checklist we had previously created. When I made the list available so that the children could add drawings of things they had seen on our walk that were not included on their list, the two girls took this activity to the next level. They began making little drawings on the chart, and then, realizing they were going for something bigger, they turned the paper over to "draw our neighborhood."

This child-initiated task led to opportunities for many aspects of development and learning to take place. As the girls discussed which stores were in our neighborhood, they collaborated and used their language skills. Fine-tuning their social skills, they negotiated who would draw each part of the neighborhood. As they remembered details of the neighborhood and objects they had seen, they were

using cognitive recall skills. They used fine motor skills as they drew with detail and precision. When they were finished, they proudly shared their drawing with the teachers and their classmates, which was a wonderful social and emotional opportunity.

Another great example of learning that formed during our project was the children's growing interest in the scaffolding they had observed around buildings where construction and repairs were taking place. After an early walk during which we had seen a nearby building surrounded with scaffolding, one boy returned to the classroom and enthusiastically drew a picture of the "worker building," along with the scaffolding. On our next walk, we paid close attention to the scaffolding and encouraged the children to touch and explore it closely. The next day, that same child who had drawn the worker building created buildings with scaffolding all around them in the block area. He talked with a peer as they worked collaboratively on the block structures, and they both incorporated the new vocabulary word *scaffolding* correctly. They balanced the blocks and discussed symmetry as they completed their structure. Weeks later when we discussed how to make a model of our neighborhood for our culminating event to showcase what we had learned, the children noted that we would need scaffolding because "we have a lot of it."

I found that active hands-on experiences common to the project approach also helped some

children stay on task. One child had a great deal of enthusiasm and eagerness to participate, but it was challenging for him to contribute successfully and stay on task when he was in the classroom. This boy loved our research walks through the neighborhood and was able to stay on topic as we discussed the buildings while he was touching and looking at them. For example, he made many on-topic contributions to conversations as we peered into store windows. He was even able to produce a drawing of the school and to describe it by saying, "This is our school. There is a top and a door and a window." The drawing was one of the most detailed he had ever created, and he completed it right after we had investigated the building in which our school is located.

Challenges with the culminating event

Throughout our study, the children showed excitement as we went on our research walks, and they were consistently focused and serious when working in the classroom. It became clear, however, that we should begin to wrap up the neighborhood study when, in late October, the children's interests shifted toward leaves and a nearby field where they could run through the gathering piles. They were beginning to be less interested in finding out about our neighborhood, and I knew that to keep true to the project approach method, we should conclude our study and share what the class had collectively learned. However, the culminating event presented

some major difficulties I had not anticipated.

When I suggested the idea of concluding our project to the children, they showed little to no interest. Forging onward, I began a class discussion by saying, "We learned so much about our neighborhood, it would be wonderful to share this with the other class, the administration, and even your parents." When I asked for ideas, I received a carpet full of blank stares. One girl responded, "I don't know." When I mentioned that parents would love to learn what we had been doing, another child responded by talking about his family. Finally, after much teacher prompting, we concluded that we should build a model of our neighborhood and have their families come in to see it.

The next day I held a short planning meeting with the children to figure out how we could build our neighborhood. I brought out

materials for children to consider, including pipe cleaners, paper plates, straws, streamers, boxes, and drawing materials. I hoped that this variety would give them something concrete to work with to ignite their ideas, but the lesson seemed forced and their engagement was not authentic. One child said, "We need a lot of buildings," yet could not generate suggestions on how to make them. A girl noted we needed to make bicycles, which we had seen and talked about in discussions on vehicles in the neighborhood. When I asked her how we should make them, she said that we should draw them, and this then became her default response for how we should represent all aspects of the neighborhood. It was also hard for the children to focus on the idea of the culminating plan. For example, one boy spoke only about the dinosaur bones we had seen at the American Museum of Natural History.



Later in the week, I began working one-on-one and in small groups with the children to expand on and execute some of their admittedly sketchy plans for our neighborhood display. One boy told us we needed trees in the neighborhood. After talking one-on-one about trees, we made a plan to create trees by using paper towel rolls for the trunks and tissue paper for the leaves. With support, he was able to successfully and proudly participate in constructing the trees.

Working mostly in small groups throughout the week, we ended up with a complete and attractive neighborhood model built inside one of the sensory tables. Our end product was nice, but the process was not authentic; it had required so much teacher involvement that it felt rather forced.

Why was the conclusion of the project so difficult for us? According to project approach literature, the culmination is a time for the children to be creative and involved in the planning process (Harte 2010; Katz & Chard 2013). I had read about many successful culminating events, yet I encountered complications when culminating our neighborhood study. Perhaps I waited too long to strike, and by the time I realized we should plan our culminating activity, the children's interest in the neighborhood project had already faded. Maybe the idea of a culminating event was too abstract for this group, particularly since I was the first in my school to try the project approach, and so we were without examples—either as displays or as events that the

children might have experienced. Might it have been the mix of children's abilities in this inclusion class that made the student-led planning of a coordinated final event harder than I expected, or that the literature describes? Whatever factors played into this difficulty at the end of the project, I found that with my group of children during that year and as a novice with the project approach, the planning and execution of the project's culmination was challenging and a bit frustrating.

Discussion and recommendations

Overall, this teacher research study provides an example of a teacher attempting the project approach independently in a small pre-K inclusion setting without formal training or ongoing support in this curricular method. As a result, I faced some resistance from administration and doubt from colleagues because they were unsure this approach would be appropriate for some of the children with special needs in our care. What the experience revealed to me is that moving from a completely teacher-derived curriculum to an emergent curriculum such as the project approach is a big shift. The project approach is exciting, meaningful, and can be very engaging for children, but it would have been helpful to have a mentor to guide me through the difficulties and questions I faced alone.

Most of my experiences mirrored what I had come to understand about the topic. As the literature suggests (Beneke & Ostrosky 2009), I saw the children get excited about learning, based on questions they were asking and topics that interested them. Also in line with the literature, the children showed strong motivation to conduct their own investigations to find answers (Beneke & Ostrosky 2009; Yuen 2009; Harte 2010.) Further, I felt the project was an empowering experience for the children. When we used the children's questions to ignite a study, or when we simply followed through on their questions and helped them find answers, they felt respected and proud. The children now know they have the power to find answers and conduct research. They know that not just teachers and other adults can answer real questions; they can, too.

What did not fit with what I had learned from the literature was my experience with the culminating event. This task was far more challenging for my group of diverse learners, although I had been under the impression that the project approach provided great opportunities for a diverse range of learners (Harris & Gleim 2008; Harte 2010). Overall, I think the children in this class would have benefited from more structure, particularly as we arrived at the culminating event. Therefore, I believe when concluding a project within an inclusion classroom, I need to find a better balance between structured and child-initiated ideas.

Conclusion

The literature that I read to educate myself about the project approach was extremely positive and talked only of successes. I'm glad that after conducting my study I can provide a well-rounded, honest example of the wonderful influences the project approach has had on my teaching while also reporting on the challenges I encountered. I believe there are remarkable benefits to having children learn through inquiry, investigation, and research.

Since conducting this research, I have moved to a new city and work in a very different learning environment. Currently, I teach at a forest school, an environment that is immensely hands-on and full of inquiry. I constantly find moments of potential investigation and research for the children, and because of my teacher research with the project approach, I am able to capitalize on these moments and turn them into inquiry-based learning. The most powerful learning I have gleaned from my work with the project approach is that when children

learn to inquire and to act on those inquiries, they are learning how to learn. They are learning to ask questions and to seek answers. Children can become empowered by their questions, interests, and thoughts. It is my hope that, through this empowerment, children are becoming lovers of learning—a love that will stay with them throughout their lives.

References

- Beneke, S., & M.M. Ostrosky. 2009. "Teachers' Views of the Efficacy of Incorporating the Project Approach Into Classroom Practice With Diverse Learners." *Early Childhood Research and Practice* 11 (1). <http://ecrp.uiuc.edu/v11n1/ostrosky.html>.
- Brewer, R.A. 2010. "The Canada Goose Project: A First Project With Children Under 3." *Early Childhood Research and Practice* 12 (1). <http://ecrp.uiuc.edu/v12n1/brewer.html>.
- Ha, Y.L. 2010. "A Valuable Experience for Children: The Dim Sum and Chinese Restaurant Project." *Early Childhood Research and Practice* 12 (1). <http://ecrp.uiuc.edu/v12n1/yuen.html>.
- Harris, K.I., & L. Gleim. 2008. "The Light Fantastic: Making Learning Visible for All Children Through the Project Approach." *Young Exceptional Children* 11 (3): 27–40.
- Harte, H.A. 2010. "The Project Approach: A Strategy for Inclusive Classrooms." *Young Exceptional Children* 13 (3): 15–27.
- Helm, J.H., & L.G. Katz. 2011. *Young Investigators: The Project Approach in the Early Years*. 2nd ed. New York: Teachers College Press.
- Katz, L.G., & S.C. Chard. 2013. "The Project Approach: An Overview." In *Approaches to Early Childhood Education*, 6th ed., eds. J. Roopnarine & J.E. Johnson, 268–84. Upper Saddle River, NJ: Pearson.
- Katz, L.G., S.C. Chard, & Y. Kogen. 2014. *Engaging Children's Minds: The Project Approach*. 3rd ed. Santa Barbara, CA: Praeger.
- Mitchell, S., T. Foulger, K. Wetzel, & C. Rathkey. 2009. "The Negotiated Project Approach: Project-Based Learning Without Leaving the Standards Behind." *Early Childhood Education Journal* 36 (4): 339–46.
- Yuen, L. 2009. "From Foot to Shoes: Kindergartners', Families', and Teachers' Perceptions of the Project Approach." *Early Childhood Education Journal* 37 (1): 23–33.

Photograph: p. 52, © iStock; pp. 56 and 57, courtesy of the author

Copyright © 2016 by the National Association for the Education of Young Children. See Permissions and Reprints online at www.NAEYC.org/yc/permissions.

Supporting Teacher Research

Making Voices Visible: Teacher Research in Associate Degree Teacher Education in Our Community Colleges

Debra G. Murphy

Seeing the benefits of teacher research makes you want to do it. It's like helping yourself in your own life, your own aura, your own mental sanity. [Laughs.] It is being proactive to fix something or work toward something.

—Holly, Head Start Lead Teacher

I discovered teacher research when *Voices of Practitioners* editor Gail Perry invited me to attend the journal's advisory council meeting at the National Association for the Education of Young Children's (NAEYC) Professional Development Institute in the spring of 2009. At that time, I was earning my doctorate and entering the 20th year of my work as a full-time instructor at a community college in coastal New England. As an instructor, my approach had been strongly influenced by the early childhood schools in Reggio Emilia, Italy. I felt a deep and nearly immediate connection to teacher research because I realized it could answer some nagging questions about the scope of preparation we offer to early childhood teachers and about the status of our field. My persistent questions had been, How can I possibly teach my students everything they will need to know when they get into the classroom with children? How can I prepare them for the complexity of teaching? And how can I help to address the issues of high stress, low status, and low compensation that plague the early childhood education workforce?

As I read the literature, starting with Meier and Henderson (2007) and then Cochran-Smith and Lytle (1993; 2009), I began to understand the potential that teacher research has to allow my students to become intelligent, reflective practitioners who can construct their own knowledge and engage in continuous improvement of their practice. Beginning the very next fall semester, I embraced teacher research as central to my teaching practice as an associate degree teacher educator. I began to use the approach as a touchstone in all my early childhood coursework and in my supervision of teachers in the field.

I am the early childhood education program coordinator and the one full-time early childhood education professor at Cape Cod Community College. I teach

Debra G. Murphy, PhD, is professor of early childhood education at Cape Cod Community College, in West Barnstable, Massachusetts. She is president-elect of ACCESS (Associate Degree Early Childhood Teacher Educators) and an executive editor of *Voices of Practitioners*. She has participated in several teacher research panel presentations at NAEYC conferences. Debra has been assigning teacher research to students in her courses for the past seven years and has been conducting her own teacher research on the process.
dmurphy@capecod.edu

the upper-level courses and supervise all of the practicum students in their field placements. Our program has been accredited by NAEYC since 2007. We have an enrollment of approximately 200 students for two Associate in Science degrees and two certificate programs.

Our student population fits the profile of most students in community colleges, which, as educational institutions, are more likely to enroll students of diverse ethnicities (Miller, Pope, & Steinmann 2004). Community college students, including ours, are also more likely to have extensive family and work obligations, attend school part time, and require remedial coursework in math and English (Caporrimo 2008; Porchea et al. 2010). Nearly all of our early childhood education students are women, and most are the first in their families to attend college. Because of these factors, our students often take six or more years to obtain what is, on paper, a two-year degree.

In my teaching, I think of teacher research as comprised of components that should begin in students' very earliest coursework. I introduce teacher research through visual documentation and a range of writing assignments that require students to reflect on their field hours, observations, readings, class discussions, and presentations. I became convinced within the first semester that I incorporated teacher research into one of my courses, that these practices are transformative. My students began asking meaningful questions, collecting data that allowed them to explore and measure the effects of their teaching, and developing convincing conclusions about what worked and what they still needed to change. More than ever before in my community college teaching experience, the students' research presentations became engaging and informative arguments about how to reform their work in early childhood settings.

Given this success, I made our program's capstone project a teacher research study. I assign this inquiry project as part of students' portfolios for their practicum course, in which they complete 150 field hours as student teachers in an early childhood classroom and attend a weekly seminar. I present the assignment at the beginning of the semester. Students then participate in one seminar session about teacher research, one session on planning their projects, and two sessions in which they share and discuss raw data they have collected. Last, students present the results of their projects during the third month of the course.

I emphasize student choice and agency throughout the project. The students select research questions from any aspect of their practice, plan and implement the data collection, analyze the data, and then write and present a final report to the class. Students' questions span a variety of topics—for example, supporting prosocial play, working with children in foster care, facilitating the language development of dual language learners, providing and encouraging healthy eating, building better family communication practices, problematizing gender differences often observed in children's play patterns, bringing nature into the classroom, and building children's mathematical knowledge. All of these examples reflect real-world challenges that our teachers encounter in their workplaces or field placements, and for many students, this project marks a significant change in their experience and identity as early childhood teachers. Instead of feeling isolated by the difficulties

of their work, students enhance their collegiality and collaboration through our seminar discussions about their teacher research projects. Students ask each other thoughtful questions and make supportive and intelligent suggestions. They share resources and examples from their own experiences. We all teach and we all learn.

Since I began using teacher research in my program, I have implemented the same approach in my college-level teaching and have undertaken a self-study to improve my practice as a community college instructor. I have been asking the question, What happens when associate degree early childhood students do teacher research as a course assignment? I have used my field notes and reflections, photographic documentation of student work, students' written teacher research reports, and interviews with 14 former students as data. My findings show that my students consistently describe ways in which they have questioned and revisited their assumptions about children and teaching—changing their expectations of how children can learn, how teachers can interact with the children, and how they can modify their classroom environments to support richer learning. Second, they talk about the benefits of the changes for young children, while reflecting growing confidence in themselves and in the future.

Underlying this practical work is my philosophical stance. To discover and clarify what I believe about teaching and learning, I have asked myself why teacher research is such a powerful focus for the program. The work of philosopher John Dewey ([1910] 1997) provides some answers. He describes the importance of specific attitudes that facilitate reflective thought: open-mindedness, whole-heartedness, and responsibility. Open-mindedness is described as the willingness to consider more than one position or point of view. Whole-heartedness refers to giving focused attention and enthusiasm to the topic at hand. Responsibility involves being aware of the outcomes of one's actions and thoughts. Dewey suggests that good teachers have these habits and strive to cultivate them in their students. These habits of thought are at the heart of inquiry-oriented teaching practice, and so they are reflected in the students' comments as they describe what they have learned and how their thinking has changed from their time in our community college program.

Veterans and less experienced teachers alike talked about change when questioned about their teacher research projects. Misti, a preschool teacher who has worked with 3- and 4-year-olds in an early childhood program for more than 30 years, described how her stance on risk-taking and collaboration changed due to her teacher research on ways to incorporate more learning about shapes and spatial sense in her classroom. She said,

I find that I am much more open to thinking outside of the box and to going out of what I would consider my comfort zone, which has been a very good thing. Certainly when I am doing something I am more apt to go ask somebody else what they think and try to bring in different ideas, which was a hard thing for me to do.

Maria, another veteran teacher of 20 years, who did her practicum in a Head Start classroom with 4-year-olds, talked about change in terms of surprising herself. She

described her teacher research on how to support a child in her classroom with special needs in fine motor development:

What stands out for me the most, and did then, was the amount of change; that you were so propelled after [the teacher research project]. You had no idea where you were going to end up, and that was phenomenal for me to have that happen in an organic way, especially since I have been in early childhood for a *long* time [*laughs*].

Amber, a preschool teacher who has been in the field for only five years, emphasized changes she implemented due to her inquiry, while also describing changes she would continue to make. Amber's teacher research project focused on how to incorporate more patterns in math in her classroom. She explained,

I found myself elaborating on the children's patterning discoveries. I have already talked about doing things in the classroom differently. I am trying to think of other ideas to make math a more exciting area for the children. I want to make math more meaty.

As these students' comments show, changing practices and changing views of their identities as teachers is part of what teacher research brings to my community college students. Another layer is students' recognition of this shift in power, which is facilitated by my willingness to coconstruct my teaching with my students. To inform my teaching, I draw from Rinaldi (2006), who uses her practice from Reggio Emilia to show how looking at visual documentation is a form of listening to children that builds collaborative inquiry. Further, from qualitative research—the methodological grounding for teacher research—I draw from work such as Gilligan, Spencer, Weinberg, and Bertsch (2003), who, similar to Rinaldi, use the metaphor of listening. They characterize how reading and rereading interview transcripts allows researchers to really listen to the data so that they can challenge assumptions and learn from the study participants.

Thus, I contend that teacher research creates a context in which the voices of early childhood community college students become visible, especially to the teacher researchers themselves. The data they collect reveal to the teachers, and tell me as their instructor, what they pay attention to. For example, the choices they make about what to photograph reveal what they have done and how children benefit from their projects. Further, their completed teacher research reports provide a culminating perspective on what they have learned, how that learning has influenced their practice, and how children have benefitted. Holly, who has been a Head Start lead teacher for five years, talked about her teacher research on supporting children in foster care:

I really broke it down to *why*—what was going on with [the children] and my reflections on how I could help them—even if I was jotting in the journals things like, "This happened today," or "They saw mom," or "They were going back and forth through foster homes," or whatever [...] There were so many things that I could reflect upon.

Misti, the veteran preschool teacher mentioned earlier, also noted that she saw how the routines built into research practices required by her teacher research project supported children's learning. She said,

I had never really thought about intentional teaching until this class. I was thinking that everything you do is intentional. But it's not. I didn't realize that, and that was a good thing for me to figure out. To be specific and intentional and to see how much information you can draw from to explore and create for children is important, and I had not thought about that.

Jennifer, who was new to the field and doing her practicum in a Head Start classroom, discussed her teacher research about when and where prosocial play happens. Her revelation was learning how to observe and facilitate by being present without always stepping in to manage children's interactions. She noticed how the research practice of closely observing children changed her approach, saying,

It made me jump in less to what they were doing. It forced me to step back and know that the situation was going to be fine. I was observing, so I didn't want to step in, anyway. But had I not been observing, I might have stepped in quicker and might never have known that they would be fine [without my intervention]. I gave them the opportunity to figure it out.

Early childhood teacher research literature underscores the benefits of teacher research that results in teacher empowerment through the generation of knowledge by teachers and the opportunity for teacher voices to be heard (Meier & Henderson 2007; Katz 2012; Lytle 2012; Perry, Henderson, & Meier 2012; Stremmel 2012). To paraphrase an old riddle, "If community college students in early childhood teacher education speak and no one is listening, do they have a voice?" I have observed how teacher research sets up expectations and routines in community college classrooms that build teacher voice, as well as engaged conversations among peers and with me as their instructor. When they inquire into their own work as teachers, early childhood educators speak with clear, confident, knowing voices. When they engage in the systematic and critical practices of teacher research, these students also become generators of knowledge, learning how to question their assumptions and their practice with young children. Thus, teacher research provides a framework for early childhood community college students to make use of the power they have to improve the lives of the children in their classrooms. Every semester my belief in the importance of teacher research in teacher education is validated by what my students have to say. They express confidence, growth, determination, and hope. As Melinda, who has been a preschool teacher for 10 years in an early childhood program, said,

I was a little nervous because I had never done anything like this before, but I think it is one of the best things I remember doing in school. I'm serious. I like to learn, maybe that's why. It was so ... what is the word I am looking for? Enlightening!

Heidi, who has been a family child care provider for 15 years, working with infants, toddlers, and preschool-age children, had the same level of enthusiasm that arose from a sense that she could be an agent of change. She observed,

It's like a circle. It's like a waterwheel. If you put something positive in, it's going to come back to you. That way, anytime the child is here, if I give them something positive they can bring that back to the next place, be it home or wherever they go.

Amber, the preschool teacher mentioned earlier who has been teaching for five years, provides another voice of hope, power, and collaboration. She noted,

Some teachers complain a lot. Change something! Let's change something. Let's do something different. Let's see if it works. If it doesn't, it doesn't. We will try something else. That's the fun part about it. We all learn in the process together, us with the children. *We all learn together.*

In my own practice, embracing teacher research is the most important change I have ever made to my teaching. As this article demonstrates, my students have provided me with evidence that teacher research helps the field of early childhood education address some of our most basic concerns about lifelong professional development, providing the highest quality teaching to all children, and raising our profile and level of professionalism as a field. Community colleges educate the vast majority of early childhood teachers, and our students are eager for a pedagogical stance that values and builds upon their wisdom as practitioners. I have seen through my own practice at Cape Cod Community College that teacher research is possible, and it has positively transformed my practice and our program.

References

- Caporrimo, R. 2008. "Community College Students: Perceptions and Paradoxes." *Community College Journal of Research and Practice* 32 (1): 25–37.
- Cochran-Smith, M., & S.L. Lytle. 1993. *Inside/Outside: Teacher Research and Knowledge*. Language and Literacy series. New York: Teachers College Press.
- Cochran-Smith, M., & S.L. Lytle. 2009. *Inquiry as Stance: Practitioner Research for the Next Generation*. Practitioner Inquiry series. New York: Teachers College Press.
- Dewey, J. [1910] 1997. *How We Think*. Mineola, NY: Dover.
- Gilligan, C., R. Spencer, M.K. Weinberg, & T. Bertsch. 2003. "On the Listening Guide: A Voice-Centered Relational Method." In *Qualitative Research in Psychology: Expanding Perspectives in Methodology and Design*, eds. P.M. Camic, J.E. Rhodes, & L. Yardley, 157–72. Washington, DC: American Psychological Association.
- Katz, L. 2012. "Developing Professional Insight." In *Our Inquiry, Our Practice: Undertaking, Supporting, and Learning From Early Childhood Teacher Research(ers)*, eds. G. Perry, B. Henderson, & D.R. Meier, 127–32. Washington, DC: National Association for the Education of Young Children (NAEYC).
- Lytle, S.L. 2012. "Some Thoughts on Teacher Research in Early Childhood Education." In *Our Inquiry, Our Practice: Undertaking, Supporting, and Learning From Early Childhood Teacher Research(ers)*, eds. G. Perry, B. Henderson, & D.R. Meier, 195–202. Washington, DC: NAEYC.

- Meier, D.R., & B. Henderson. 2007. *Learning From Young Children in the Classroom: The Art and Science of Teacher Research*. New York: Teachers College Press.
- Miller, M.T., M.L. Pope, & T.D. Steinmann. 2004. "Dealing With the Challenges and Stressors Faced by Community College Students: The Old College Try." *Community College Journal of Research and Practice* 29 (1): 63–74.
- Perry, G., B. Henderson, & D.R. Meier, eds. 2012. *Our Inquiry, Our Practice: Undertaking, Supporting, and Learning From Early Childhood Teacher Research(ers)*. Washington, DC: NAEYC.
- Porchea, S.F., J. Allen, S. Robbins, & R.P. Phelps. 2010. "Predictors of Long-Term Enrollment and Degree Outcomes for Community College Students: Integrating Academic, Psychosocial, Socio-Demographic, and Situational Factors." *Journal of Higher Education* 81 (6): 750–78.
- Rinaldi, C. 2006. *In Dialogue With Reggio Emilia: Listening, Researching, and Learning*. Contesting Early Childhood series. New York: Routledge.
- Stremmel, A.J. 2012. "Reshaping the Landscape of Early Childhood Teaching Through Teacher Research." In *Our Inquiry, Our Practice: Undertaking, Supporting, and Learning From Early Childhood Teacher Research(ers)*, eds. G. Perry, B. Henderson, & D.R. Meier, 107–16. Washington, DC: NAEYC.

Assigning Reflective Memo Blogs to Support Teacher Research Data Analysis

Megan Blumenreich

As a teacher educator working with master’s students on their culminating yearlong teacher research projects, I have struggled to convince my students of the importance of ongoing data analysis—and to encourage them to make time in their busy lives to actually do it. Qualitative researchers have long agreed that ongoing reflection and data analysis is important throughout the data collection period (Freeman 1998; Saldaña 2011). As Ely, Vinz, Downing, and Anzul (1997) write, “The interweaving of data collection and analysis is highly transactional, each activity shedding new light on and enriching the other” (165). The authors further assert that skimping on early data analysis can be detrimental: “When analysis has not been ongoing, the end results tend to be less rich and insightful. They also tend to have big holes in what is needed to tell the story” (174). Teacher research is an “ongoing, reiterative process,” and teachers’ responses in their classrooms should be the result of careful analysis and reflection (Klehr 2012, 127).

To foster the habit of early and ongoing analysis in research, I have been assigning an analytic (or reflective) memo blog for the last few years, an idea drawn from Saldaña’s (2009) work on analytic memos. This exercise has the potential to help researchers form connections that make their research both stronger and more interesting. I share examples from my students’ work to show some of the ways I believe they have benefited from their blogs. However, it might be useful to note that independent in-service teacher research groups could benefit from this practice as well.

Megan Blumenreich is an associate professor of childhood education at the City College of New York, CUNY, and the editor of *The New Educator* journal. mblumenreich@ccny.cuny.edu

The benefits of reflection during early data collection

Much of ongoing data analysis involves reading and rereading data as the pieces are collected, developing codes and categories. Researchers code using a variety of methods at different times depending on the focus of the work and available data. These methods are fundamental to analysis because they are “natural and deliberate” and aim to find the repetitive patterns in data (Saldaña 2009, 5). However, Wolcott explains that “truly analytical moments will occur during brief

bursts of insight, or pattern recognition,” in contrast to what he calls “the tedious business” of coding and other methods of data management (1994, 24). That is why writing memos is an important complement to coding. Coding alone can neglect important connections.

Writing memos has the potential to help researchers capture moments of insight, recording moments that can both influence future data collection and be remembered for the analysis of the project. Saldaña explains that memos can take the form of journal entries or blogs—“a place to ‘dump your brain’” (2009, 32). Others, like Charmez (2014), recommend writing memos based on one’s codes to help clarify what is happening in the field. Such reflective memos can lead to shifts in thinking during the data collection process (Ely et al. 1997). For my assignment, blog entries are meant to be completed alongside more systematic and careful coding procedures.

My blog assignment

Before I began assigning reflective blogs, I had planned for my students to bring data to class early in the data collection process so that they could share it with their peers and begin to code the data together. I aimed to use classroom time for members of the class to engage in deep discussions about one another’s data from the beginning of the research project, similar to the conversations between researchers that are documented in Brookline Teacher Research Seminar’s book *Regarding Children’s Words: Teacher Research on Language and Literacy* (Ballenger 2004). However, in the context of a large public urban university, where students balance work, families, classwork, and research, sharing data during class early in the data collection process never works out as planned. Some students are unprepared to bring in their data, and the class sessions are not very helpful to these students.

I came up with the idea of using some of the online sessions of my hybrid course to have students write what I called “Memos to Myself” blogs during the early data collection period. The students write four approximately 500-word blogs, in which they illustrate their ideas using specific examples from their data. I have found them to be useful for many reasons. When students read their peers’ blogs, they see the range of levels of work and thinking being done in the class. This has a positive influence on many students’ work. Some may not have understood the assignment or expectations, and seeing peers model exemplary work is helpful. The public nature of the blog work also seems to motivate my students to get serious about their data collection early in the semester. Eventually I decided to stop teaching the course as a hybrid because I felt I needed the face time with my students, but I have continued to assign the blogs.

The assignment (see Appendix A) always requires students to reflect on their early data collection experiences. Although I try to adapt assignment prompts to meet my students’ needs throughout the semester, for the most part, the prompts ask the students to write about their data collection (how are they thinking about their participants, their research questions, their data, etc.) at early points in the process. I require the students to comment on at least three of their classmates’ blogs and ask

students to include their research questions in their blogs so that members of the class can be reminded of their study's focus.

I provide feedback on the first blog (but no grade) to help the students understand what I expect. There are usually students who need to be reminded to focus on their data. Some seem to feel internal pressure to figure out their whole study right away, leaping to conclusions rather than taking the time to explore what the data are truly saying. I remind these students that the process of being systematic and intentional with one's data is at the heart of teacher research (Cochran-Smith & Lytle 1993). I may ask students to look at just a couple pieces of data and remind them to be careful to provide ample evidence from the data when they begin to assert points about what they see.

Benefits of using the data analysis blogs

These blogs have produced some valuable learning experiences. I compiled these findings after reviewing blogs from three semesters (Spring 2015, Fall 2015, Spring 2016). Before I describe them, I should note that my students include both experienced teachers returning to school for master's degrees and new teachers working on their master's as part of their initial certification.

Evaluating research questions

Sometimes students discover from writing their initial public memos that their data doesn't quite match up with their research questions, and they determine that they need either to reconsider their research questions or adapt their data collection process. For example, Teresa (all names are pseudonyms), a student teacher who was learning about ways to support struggling literacy learners in an urban classroom, wrote about her work with one student. In writing her memo she noticed that she needed either to change the focus of her study or begin collecting data to provide a wider view of the classroom. (The comments of her peers supported this conclusion.) Either choice was fine—she just needed to be aware that her data collection was drifting away from her original plan and make a decision about how she'd like to move forward.

Aligning the research question more strongly with the experiences or the data available in the classroom is common for teacher researchers. Klehr reminds us, "It is not unusual for questions to continue to evolve and change over time in relation to emerging data, student interactions, or shifting events in the broader political landscape of schools" (2012, 123). Writing their blogs can make it easier for students to recognize earlier in the process if their focus is changing and to clarify the purpose of their study.

Adapting data collection methods

Sharing memos provides opportunities for the class to highlight data that is particularly interesting and gives others a chance to make some suggestions for coding in the future. For example, when Deborah ended her "brain dump" entry on what she was observing in two different classrooms, she made several statements

Similarly, Magda posted photos (without children's faces) of strategies she was using to try to give her preschoolers more autonomy in the block area. Her aim was to have the children play in the block area for sustained periods without a teacher leading the experience. She tested out ways to make the block area more enticing to children, such as turning it into a construction site with hard hats and tools. Later, she described implementing a new strategy she had read about in the literature that involved putting a photo of each child in the class on a different block. She wrote in her blog entry:

I introduced my students to that new supporting item by placing them on the rug together with a small structure built before I opened the classroom in the morning. I wanted to observe the children's reaction on that without any teacher's suggestions, engagement, or support. A few students visited the area first thing in the morning, and those blocks were noticed right away. I heard:

"Wow, it's me!"

"Look, Lara, I see you here!"

"There is everybody here!"

One boy took a block and went to a sensory table to show it to his friend. He said: "Look, Andre. It's you. Do you want to see me?"

After a few minutes, more than half of the class (eight children) was sitting on the rug in the block area. They were looking for their friends, asking who is on the picture.

Magda shared the photos and then expressed her concerns about how to extend the play with these blocks that had the children's photographs on them. She received many comments from her colleagues. One student suggested placing pictures from a children's book the class was reading on the blocks at another time to give the children an opportunity to re-create the story or to make up their own stories. This is just one example of how sharing photographs and other data on the blogs became a good opportunity for the students to invite others into their study.



Working as professional colleagues

A central goal in the research course is for my students to grow as professionals. This goal is realized in a variety of ways in teacher research, such as when students learn to ask their own research question, research and synthesize what the professional literature says about the topic, and systematically study and analyze empirical data related to their research project. Along these lines, working with their peers to iron out issues in their research can help my students to see how they can go about solving a problem in the field and, in many cases, how much they know about education.

For that reason, I try to give my students opportunities to tackle dilemmas in their work and research together. I write positive public comments on their first blog and then write private comments on subsequent blogs so that my opinions don't dominate the discussion. I have found that my students read each other's blogs very carefully, comment on more blogs than are required of the assignment, and offer sincere support for one another's work. Most often the students' comments take the form of advice, encouragement, and questions about specific pieces of data or instructional materials.

Sometimes students simply call attention to an aspect of a blog that makes them think about teaching in a new way. Students will quote a line from the blog to consider, highlighting an idea of interest to them and perhaps to other teachers. For example, one student pulled a very complex question about motivation from a peer's blog entry: "How can someone turn a child's mood around and bring them back into the learning despite outside situations?" The commenter said she had often thought about this in her classroom. Her highlighting of this question invited other members of the class to share their opinions on the topic.

Other times students will ask for responses to a specific question. In her blog, Jennifer, who was studying the use of digital resources to assist kindergartners with literacy, asked, "When do resources cause more disruption than help?" One student shared an experience when she felt that technology got in the way of learning in her classroom. Other students in the class offered many ideas about how she could support her kindergartners to use the technology. They suggested that Jennifer could talk with her class and develop rules for using technology in the classroom, or she could use a sandglass to get the children in the habit of taking short turns.

Some students shared their concerns with their peers more openly on the blog than they do during class. One quiet student, a preservice career-changer who was conducting her study about ongoing support for new teachers available in urban schools, shared that after interviewing several new teachers she was getting "worried" and "second guessing becoming a teacher." Many students responded with suggestions that included networking with teachers to find schools with strong mentoring programs and considering first applying for a job as a paraprofessional or assistant teacher to prepare to become a head teacher.

Many of the comments were not about improving the research project but instead focused on the realities of teaching that the research project was exposing to this student. The lines between research and practice are indeed often indistinct in teacher research as Cochran-Smith and Lytle (2009) explain:

With practitioner research the borders between inquiry and practice are crossed, and the boundaries between being a researcher and being a practitioner are blurred. Instead of being regarded as oppositional constructs, then, inquiry and practice are assumed to be related to each other in terms of production and generative tensions. (95)

The students' blogs have the potential to foster a caring community beyond the one period a week meeting in which our graduate students are physically together. In this new space, students can share pressing issues in the classroom that influence both their lives and their research.

Conclusion

Reflective blogs are less formal than the final research project and allow these new teacher researchers to resolve classroom dilemmas and start to make connections to the ideas they've studied in their master's coursework. Cochran-Smith and Lytle (2009) explain that this is central to the work of teacher or practitioner research:

By definition, practitioner research is grounded in the identification and empirical documentation of the daily dilemmas and contradictions of practice, which then become grist for the development of new conceptual frameworks and theories. (95)

The blogs are not intended to replace classroom experiences in which student researchers explore one another's data. But they seem to create some good habits of analyzing data early in the data collection process that lead to more successful in-class experiences, looking carefully at data with peers. It is helpful for students to have many different types of opportunities to simply explain what they think they are finding in their research and to identify evidence that supports their hunches. Doing so when the stakes are low can help one to articulate emerging findings (Freeman 1998).

Appendix

Write the second memo to yourself (at least 500 words) about your data collection experiences or processes (the reflection ideas below are from Saldaña, 2009, pp. 34 & 35). For full credit you must discuss your data and the study in detail. Illustrate your ideas using examples from your data. It should not read like a quickly jotted down free-write. Here are some ideas of topics:

- Reflect on and write about how you personally related to the participants.
- Reflect on and write about your study's research questions (and make connections to what you are noticing in your data collection).
- Reflect on and write about the emergent patterns, categories, themes, and concepts.

Please comment on 3–4 other classmates' blogs—see if you can help them push their thinking about their own projects!

The second memo is due 9/26, and the comments are due 9/28.

This assignment is graded (out of 5 points). Please note, in order for everyone to get ample feedback, it is important to respect these deadlines.

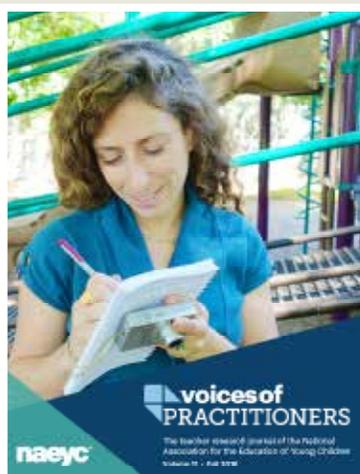
References

- Ballenger, C. 2004. *Regarding Children's Words: Teacher Research on Language and Literacy*. New York: Teachers College Press.
- Charmez, K. 2014. *Constructing Grounded Theory*. 2nd ed. London: Sage.
- Cochran-Smith, M., & S.L. Lytle. 1993. *Inside/Outside: Teacher Research and Knowledge*. New York: Teachers College Press.
- Cochran-Smith, M., & S.L. Lytle. 2009. *Inquiry as a Stance: Practitioner Research for the Next Generation*. New York: Teachers College Press.
- Ely, M., R. Vinz, M. Downing, & M. Anzul. 1997. *On Writing Qualitative Research: Living by Words*. London: Routledge Falmer.
- Freeman, D. 1998. *Doing Teacher Research: From Inquiry to Understanding*. San Francisco: Heinle & Heinle.
- Klehr, M. 2012. "Qualitative Research and the Complexity of Classroom Contexts." *Theory Into Practice* 51 (2): 122–28.
- Saldaña, J. 2009. *The Coding Manual for Qualitative Researchers*. Los Angeles: Sage.
- Saldaña, J. 2011. *Fundamentals in Qualitative Research: Understanding Qualitative Research*. New York: Oxford University Press.
- Wolcott, H.F. 1994. *Transforming Qualitative Data: Description, Analysis, and Interpretation*. Thousand Oakes, CA: Sage.

Photographs: courtesy of the author

Copyright © 2016 by the National Association for the Education of Young Children. See Permissions and Reprints online at www.NAEYC.org/yc/permissions.

Can't get enough of *Voices of Practitioners*?



Join our online community of educators who are passionate about teacher research by signing up to receive exclusive *Voices of Practitioners* updates, including:

- When new teacher research articles are published in NAEYC's bimonthly journal, *Young Children*
- Invitations to conference sessions focused on teacher research, including at NAEYC's Annual Conference and Professional Learning Institute
- The latest resources and publications dedicated to teacher research, and more!

Sign up for the *Voices of Practitioners* email list today at NAEYC.org/content/stay-connected.

Save the date for

NAEYC's 2017 Public Policy Forum!

Sunday, February 26–Tuesday, February 28 | Washington, DC

You voted Early Ed for President, now join us in our nation's capital to advocate for early childhood education and educators with a new Congress and a new Administration! NAEYC members, each one of you is an advocate. At Public Policy Forum, you will:

- Be part of a team working to advance federal and state early childhood policy
- Hear from and network with national and state policy leaders and fellow advocates
- Get the resources and experiences you need for effective advocacy
- Meet with members of Congress and build relationships

For more information, email advocacy@naeyc.org or visit our website for updates.

Not a current NAEYC member but interested in joining your state's team? Visit

[NAEYC.org/membership](http://naeyc.org/membership)

to join the nation's largest and most influential early childhood education association.

Here's how participants described the 2016 Public Policy Forum

A word cloud of participant feedback from the 2016 Public Policy Forum. The words are arranged in a circular pattern, with 'Empowering' and 'Amazing' being the largest and most prominent. Other words include 'Informative', 'Educational', 'Interesting', 'Fun', 'Awesome', 'Eye-opening', 'Enlightening', 'Beneficial', 'Empowered', 'Motivating', 'Great', 'Inspiring', 'Fabulous', 'Positive', 'Energizing', 'Encouraging', 'Purposeful', 'Hopeful', 'New', 'Rewarding', 'Useful', 'Wonderful', 'Work', 'Inspirational', 'Life-changing', 'Fulfilling', 'Hands-on-learning', 'Good', 'Exciting', and 'Incredible'.



You won't want to miss it in 2017.
Join us—together, we can make a difference.

Save the date for San Francisco!

2017 NAEYC

Professional Learning Institute

June 11–14 | San Francisco, California

NAEYC's Institute is the premier professional development conference for early childhood faculty, researchers, administrators, trainers, and teacher-educators. That means it's the premier conference for **you**.

Join us in June for exciting networking opportunities, thought-provoking workshops and sessions, and the chance to make a difference in the early learning community.

Learn more and sign up for event updates and news alerts at NAEYC.org/institute.

Registration opens March 2017.



naeyc
Institute

New name, same great conference

#naeycINST

NAEYC.org/institute

Get Ready!

In 2016 we launched new NAEYC member benefits, improved existing benefits, and were more member-focused than ever before.

But that's nothing compared to what we have in store for 2017.

Next year, we will take a major step forward by introducing a variety of new benefits and options for our members. NAEYC membership will pay for itself. Members will receive new and different content, more professional development opportunities, and much more.

Together, let's do big things in 2017.

NAEYC.org/membership

Today, we invite you to come on this journey with us. Join or renew your NAEYC membership. Invite a colleague to join.



Visit NAEYC.org/membership and join today!



Early Childhood Higher Education Programs

Say Hello to the New NAEYC Accreditation of Early Childhood Higher Education Programs

It's an exciting time for professional preparation at NAEYC!

The higher education accreditation system has recently expanded beyond accrediting associate degree programs to include programs at the baccalaureate and master's degree levels!

Start your program's accreditation journey now at [NAEYC.org/HigherEdAccred](https://naeyc.org/HigherEdAccred) or send an email to [highered@NAEYC.org](mailto:highered@naeyc.org) for more information.

NAEYC congratulates the 177 institutions across the nation that currently have accredited programs, and thanks the 10 institutions participating in the pilot of the expanded accreditation system. Your dedication to high-quality professional preparation for educators of young children is crucial to advancing the early learning profession.





Children—all children, all across the country—need access to quality early education every day.

As we learn more about the positive outcomes of high-quality early learning, we see how critical it is for programs to use best practices and have a consistent understanding of ways to improve and maintain program quality.



There has never been a better time to seek NAEYC Accreditation.



We are adapting our process to be more transparent, customizable, and supportive than ever before.

NAEYC Accreditation actively transforms the culture of an early education program into a strong, positive place where families are proud to bring their children and where teachers and staff are committed to and excited about providing young children the best early care and education.



ABOUT NAEYC ACCREDITATION

Using a set of 10 research-based standards, NAEYC Accreditation collaborates with early learning programs to recognize great work already under way and work together on understanding and addressing areas for improvement. The accreditation process is intentionally designed to adapt to the needs of each individual program.

[NAEYC.org/academy](https://naeyc.org/academy)
accreditation.information@NAEYC.org
1-800-424-2460, option 3

naeyc[®]

National Association for the Education of Young Children

NAEYC.org