voices of practitioners

Zooms: Promoting Schoolwide Inquiry and Improving Practice

Ben Mardell, Debbie LeeKeenan, Heidi Given, David Robinson, Becky Merino, and Yvonne Liu-Constant

A group of teachers and the program director describe a powerful collaborative and interactive teacher research process they developed at their school. The process engages teachers in generating new insights about teaching and learning. This article provides a road map for creating Zooms—documentation panels that are snapshots of classroom life—as unique, concrete models of teacher research. The authors illustrate how constructing Zooms helps teachers focus on children's learning when so much is going on in a lively classroom.

Ben and his colleagues show how they created a professional learning community—a culture of inquiry in their early childhood school that also enhanced staff collegiality. The teachers evolved from individual, reflective practitioners to collaborative, schoolwide teacher researchers. A real strength of the project is its emphasis on the teachers as knowledge creators. The Zooms process builds collaboration in concrete and structured ways and makes schoolwide inquiry key in teachers' professional development.

—Barbara Henderson

Ben Mardell, PhD, was the kindergarten head teacher and research coordinator at Eliot-Pearson Children's School, Tufts University, in Medford, Massachusetts. He is now an associate professor at Lesley University and a researcher at Harvard Project Zero. bmardell@lesley.edu

Debbie LeeKeenan, MA, is director of Eliot-Pearson Children's School. debbie.leekeenan@tufts.edu

Heidi Given, MA, was the three-day preschool head teacher at Eliot-Pearson Children's School. She now teaches kindergarten and is the research coordinator. heidi.given@tufts.edu

David Robinson, MS, is a preschool head teacher at Eliot-Pearson Children's School. david.robinson@tufts.edu

Becky Merino, MA, was the first and second grade head teacher at Eliot-Pearson Children's School. She is currently home, caring for her first child.

Yvonne Liu-Constant, PhD, was the two-day preschool head teacher at Eliot-Pearson Children's School. She now teaches kindergarten at the Advent School. liuconstant@gmail.com

The authors thank their colleagues at Eliot-Pearson Children's School, the coauthors of Zooms: Maryann O'Brien, Jill Fishman, Maggie Beneke, Kirkland LaRue, Eva May, Rachel Gerber, Lindsay Barton, Megina Baker, Irma Hodzic, Jessica Saltz, and Jessica Torgenson.

How can focusing on a particular moment of classroom life help teachers understand children's capabilities and concerns and support their collaborations with peers?

For the past several years, the teachers and administrators at the Eliot-Pearson Children's School in Medford, Massachusetts, have worked to create a culture of research and reflection by conducting schoolwide inquiries into teaching and learning. Near the end of the 2005–06 school year, the staff developed a documentation technique called *Zooms* to improve teachers' abilities to respond to children in new ways and help children listen and learn from each other. Each teaching team created a Zoom panel that focused on a "moment" from their classroom.

The main purpose of this article is to describe a collaborative teacher research project examining how the Zooms contribute to the way we foster children's learning. The article begins by describing the evolution of the schoolwide inquiry from which the Zooms emerged. At the end of the article, we reflect on whether the Zooms helped promote a culture of inquiry among the educators at the Children's School, and we discuss the way Zooms influenced the quality of our staff meetings.

Part of the school's mission is to generate new knowledge about teaching and learning.

The evolution of a schoolwide culture of inquiry and the Zooms

The Eliot-Pearson Children's School is a laboratory school at Tufts University. The school's five classes serve 78 children, 3 to 8 years old: a first/second grade class, a kindergarten class, a mixed-age (3- and 4-year-olds) class, a two-day-a-week preschool (3-year-olds) class, and a three-day-a-week preschool class. Each class has a head teacher and a graduate teaching assistant who work as a team. The school serves families from a variety of cultural, racial, and linguistic backgrounds and family structures. As an inclusion model school, we work closely with several school districts to serve many students with special needs—or special rights, as we prefer to say.

Part of the school's mission is to generate new knowledge about teaching and learning. Staff undertake this task individually, in teaching teams, and for the past several years, through collaborative schoolwide teacher inquiry. As a community, we value the spirit of collegiality among the teachers, and in the past we established this spirit by sharing common curricular topics, such as the civil rights movement or families. Our evolution from individual reflective practitioners to collaborative teacher researchers built on this collegiality. In the schoolwide inquiry, the entire staff of the Children's School explores a common interest related to teaching and learning. The goal of the investigations is to develop shared understandings about our teaching practices. In this way, the inquiry is a central feature of the staff's professional development. It is, in the words of Reggio Emilia educator Carlina Rinaldi, "how we learn to teach" (Project Zero 2002, 13).

In 2004 a part-time position, research coordinator, was created to guide the schoolwide inquiry. It was filled by the kindergarten teacher, who serves as both teacher and research coordinator. The research coordinator works in partnership with the director through weekly meetings, consults with each teaching team about its inquiry project, and facilitates staff meetings. Listening to recordings of staff meeting conversations helps the research coordinator plan the direction of the inquiry. The research coordinator helps each teaching team frame more focused questions that are relevant to the learning and interactions in their classrooms but within the broad inquiry topic.

Over the years we learned a great deal from the initial inquiries. In 2003–04, the first year of conducting the inquiry, we selected a piece of equipment—the overhead projector—as the inquiry's focus. Each teaching team documented and interpreted children's investigations with the overhead projector as the children explored light, shadow, transparency, and color. At the end of the school year, we agreed that having a common topic supported our learning, but we felt the topic should have a broader impact on teaching and learning. The second year, the inquiry focused on children's use of clay. Again, the shared topic was important, yet we found the materials theme limiting.

Chronology of Events Leading to Zooms

2003 Faculty shift from collaborative curriculum to schoolwide inquiry with a common inquiry focus

2003–04 First schoolwide teacher inquiry documents children's exploration of the overhead projector

Spring 2004 Faculty want to form a more intellectual learning group among the adults at the school

2004 Appointment of a part-time research coordinator

2004–05 Second year of schoolwide inquiry focuses on children's use of clay

2005–06 Third year of schoolwide inquiry focuses on children's power and engagement in the classroom

Spring 2006 Staff become interested in Carla Rinaldi's pedagogy of listening; faculty create the Zooms

2006–07 Fourth year of schoolwide teacher inquiry focuses on listening and learning

Spring 2007 Staff identify five domains central to creating spaces for listening—setting, activities, values/beliefs, social overlay, and cognitive factors—and each teaching team is assigned one of the five domains to investigate

During the third year, the 2005–06 school year, we decided to focus on a more abstract concept in our schoolwide inquiry: power and engagement in small groups. We chose to view our practice through the two lenses of power and engagement because both are central themes played out in the lives of children in early childhood classrooms. By *power*, we mean the dynamics between children and adults and among children regarding the control of any interaction's agenda (for example, play, conversation). *Engagement* is a choice all learners make about learning activities: how much, if at all, to attend, participate, and care. We felt that studying power and engagement would have great educational value for us as staff.

Classroom Questions on Power and Engagement

The research coordinator helps the teaching teams frame more focused questions—within the broad inquiry topic—that are relevant to the learning and interactions in their classrooms. These are the classroom questions related to the 2005–06 schoolwide inquiry about power and engagement in small groups.

Two-day preschool class: What are ways 3-year-olds feel powerful in our class? How can we empower them?

Three-day preschool class: What does it mean to be a powerful participant in a classroom community?

Mixed-age class: How does power in the large group influence power in the small group? How do children at this developmental stage understand groups and power? How do children define themselves as a group and/or develop as a group over the course of the year?

Kindergarten: What do power and engagement look like in study groups? How can kindergartners engage themselves and their peers in small group learning? How can teachers facilitate their students' abilities to engage in these activities?

First/second grade: What are ways that children can be positively engaged in small groups? How can teachers foster these different forms of positive engagement?

Development of the Zooms

In the third year of implementing schoolwide inquiry, we initiated the use of Zooms. Carlina Rinaldi's idea of a *pedagogy of listening* (Rinaldi 2006) provides an expanded understanding of listening that helped us think about our schoolwide inquiry. For Rinaldi, listening involves, but is far more than, paying attention and should not be confounded with obedience (for example, as used in the common adult statement, "You're not listening," when a child does not comply with directions). *Listening* is an active verb, involving interpretation. It requires a welcoming attitude—an openness and sensitivity to emotions and ideas. Listening formulates questions. It is essential for learning relationships. Listening helps connect people and ideas.

Such listening is not easy, but it is a skill and a disposition that people can develop. Rinaldi talks about *capacity for listening*. This capacity involves individuals but can also be applied to groups—the staff of the Children's School collectively could become better able to listen and learn together. Like other learning, our capacity to listen could be deepened by supportive colleagues and teaching tools. Regarding the latter, Rinaldi describes documentation as *visible listening*. She argues that one of the main purposes of documentation is to facilitate listening, a critical component of a learning community. The sense that documentation could be a tool to develop the capacity for listening gave rise to staff's creation of the Zooms.

What is a Zoom?

A Zoom is a three- by four-foot documentation panel that offers a close look, as with a zoom lens, at the children's and teachers' responses and understandings of their classroom's research question. *Zoom* is both a verb and a noun. The dual usage encompasses a way of zooming in (verb) and creating a snapshot of particular moments of classroom life, and it refers to a specific type of documentation—a Zoom panel (noun). The goal of the Zooms is to capture key aspects of the l arger picture of unfolding relationships and understandings between children and between the teacher and the children as they consider the inquiry question in small groups. Zooms include images and words: photographs, quotes from children's discussions with each other and from discussions between children and teachers, and children's artwork representing their ideas. The teaching team incorporates their analysis of what the small group sessions say about the teacher inquiry question.

Zoom panels are the culmination of the yearlong process of schoolwide teacher inquiry wherein the teachers document the teaching and learning relationships as they take place in everyday classroom interactions. Reading about the topic and having discussions focused on the classroom inquiry questions—at staff meetings and informally between teachers—enhance teachers' learning. Toward the end of the year, each teaching team selects a classroom episode that accurately represents what the teachers have learned about the classroom inquiry question.

Here is how a Zoom develops, starting with conceiving the year's inquiry topic.

From concept to display

The notion of focusing on listening emerged when the research coordinator was looking over a set of documentation panels—Zooms—from the previous year's inquiry. He noticed that *listening* as an idea came to the forefront in all the classrooms. For example, the teachers of 3-year-olds wrote about a small group working together:

> Each child is careful to capture the attention of the other group members before fully sharing her/his idea. Each child listens fully before responding.

At the first staff meeting about the schoolwide inquiry, we decided that listening would be the focus that year. We spent the fall discussing what we meant by listening and honing in on more specific questions. We analyzed Carla Rinaldi's article (2006) and watched videotapes of the students to identify where listening was taking place. And we hypothesized about which features of the context promoted listening.

Based on these conversations, the research coordinator put together a draft analysis of listening and the conditions that promote it. We put our thinking up on a board in order to revisit and revise our theories further.

In the winter, teaching teams began bringing to staff meetings stories about their students' learning that were relevant to the issue of promoting listening. The stories were often supported by photographs, videotapes, or transcripts of conversations with children. In the end, we identified five domains that we felt were central to creating spaces for listening: setting, activities, values/beliefs, social overlay, and cognitive factors. Each teaching team investigated one of the five domains and selected a classroom episode that captured their thinking about how children learn to listen to each other and connect their ideas to the ideas of others. The teaching teams created their Zoom panels to document these moments of classroom life, showing the interplay between listening and one of the five domains. The Zooms included an analysis written by the teachers, describing the children's and their own interactions promoting listening (see Appendix, pp. 14–15, for an example from a Zoom about listening).

Each teaching team selected a classroom episode that captured their thinking about how children learn to listen to each other and connect their ideas to the ideas of others. They created their Zoom panels to document these moments of classroom life.

Teacher research question

Six members of the staff at Eliot-Pearson Children's School wanted to find out whether constructing Zooms was helpful in generating new understandings about the children and about our practice. So we six—the authors of this article—embarked on the teacher research project described in the following pages. Our research question was this:

How can focusing on a particular moment of classroom life help teachers understand children's capabilities and concerns and support their collaborations with peers?

Data collection and analysis

Zooms were first used in the 2005–06 school year. That year, the schoolwide teacher inquiry focus was children's engagement and power. We gathered the following data for our teacher research:

- Transcripts collected in the classrooms during the preparation of the Zooms
- The audio and video transcripts of the presentations of and discussions about the Zoom panels during staff meetings
- Informal conversations within classroom teaching teams and between teachers in different classrooms while creating the Zooms
- Feedback from families and others attending the end-of-year exhibit as they viewed the Zooms panels

The final Zooms are analyzed individually by teachers, between teaching teams, at informal gatherings of faculty, and during whole-group staff meetings. They are read by families, colleagues from outside the school, and by new staff in the following school year. Teachers look for patterns of children's and teachers' responses to the schoolwide inquiry questions of the teaching teams and for teacher-child interactions that offer new insights about children's capabilities and concerns and about peer collaboration.

Findings

The process of zooming in on and carefully considering a particular classroom episode is a powerful learning experience for staff. Capturing these moments in documentation panels allows staff to collectively revisit and reflect on their questions and theories about teaching and learning. The full impact of Zooms on the school was not apparent immediately; however, it has become clearer over time.

Learning about children's capabilities and concerns and ways to support their collaboration

So much goes on in a classroom that it can be difficult for teachers to focus. By allowing us to look closely at the students' learning, Zooms help us better understand the children's capabilities and emotional concerns and suggest ways to support their collaboration. This section provides excerpts from Zooms—class questions (in boxes), classroom moments, and teacher discussion—illustrating these findings.

Children's capabilities

While the faculty of the Eliot-Pearson Children's School embrace an image of children as competent, our young charges' specific capabilities are something we are constantly learning about. The Zooms created by the preschool teachers and the first/second grade teaching team enlarge our understandings of these capabilities.

Mixed-age room question

How does power in the large group influence power in the small group? How do children at this developmental stage understand groups and power? How do children define themselves as a group and/or develop as a group over the course of the year?

Mixed-age room Zoom—"Two Flowers." The 3- and 4-year-olds classroom's contribution to the end-of-year exhibit is a series of observational paintings of two cut roses. The children each took a turn, and the class created 18 paintings over a 10-day period, during which the roses wilted. A photograph of the roses is paired with two children's depictions of the flowers, painted on the same day the photo was taken. The accompanying Zoom explains how each child had the opportunity to discuss the paintings with peers and teachers, noting that in small groups the children had deep and meaningful conversations. Illustrating this is a conversation between Emily and Joe, facilitated by their teacher David:

David: Do you have anything to say about each other's painting?

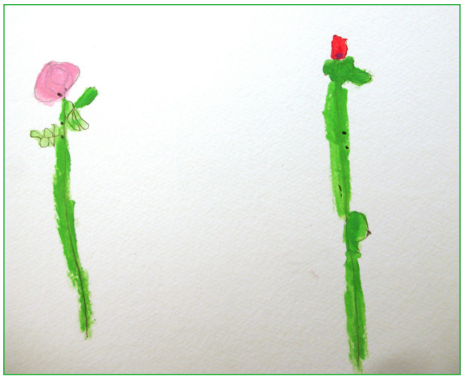
Joe: There are a lot more lines on Emily's painting.

Emily: Joe's painting is all different colors. It doesn't actually look like the rose because he is using his imagination.

Joe: Artists use their imagination.

Emily: Yeah.

Joe: Sometimes they use lots of colors and use their imagination.



David Robinson

The Zoom explains how each child had the opportunity to discuss the paintings with peers and teachers, noting that in small groups the children had deep and meaningful conversations.

David Robinson

Emily: Sometimes using your imagination could make things look prettier.

(*Pause*)

David: Do you have anything more to say?

Emily: At my grandpa's house, I saw a painting of a person that was not all done, and it reminds me of Joe's painting. The painter was a famous painter.

Joe: I like Emily's painting. I like how she used colors.

David: Did you learn anything from talking about each other's paintings?

Joe: Talking would make me color the rest, and it would make me think more about colors.

Emily: Talking kind of helps me learn, like when I tell my brother Jacob things, and then he learns.

First/second grade Zoom—"Connections, Collaboration, and Compromise." In this Zoom, the children's drawings from their study of Boston are paired with work from their Boston curriculum (a map of the city, sketches of the state house, and a model of Paul Revere's house). The Zoom begins:

First/second grade question

What are ways that children can be positively engaged in small groups? How can teachers foster these different forms of positive engagement?

Group work is challenging! It is a challenge for students as they work through the many issues that arise both in building and in sharing their ideas and opinions. It is a challenge for teachers to provide the right amount of scaffolding to help the group achieve its goals while still allowing the children to work through problems on their own.

We often met as a class to discuss the challenges and successes each small group experienced. In one discussion, children shared comments about everyone in a group not doing the same amount of work:

Becky [the teacher]: What if someone in your group isn't helping? What should you do?

Amelia: You can tell them, "You have to work with us."

Becky: Why do you think a person might not be helping as much?

Jackie: Maybe they missed something or they don't have an idea.

Sophie: You could remind them of the directions and tell them you want them to be a part of the group.

Olivia: Maybe they're not helping as much and they're tired.

Becky: And they need to wake up a bit? Definitely! And sometimes people just need to step back and look at the work and see the whole project. Do any of you ever need to do that?

Group: Yes!

Four-year-old Emily and Joe's conversation (pp. 6–7) helps us realize that young children are capable of providing thoughtful feedback to one another. Indeed, the following year David (the preschool teacher) began facilitating such conversations in September rather than waiting until May. Asking children to comment on each other's work has become standard practice across the school. The first/second-graders' conversation underscores children's abilities to reflect on issues of engagement and power in group settings. Again, teachers across the school now invite children's input on learning about how groups work and solicit suggestions about how they might work better.

Children's emotional concerns

Working with twelve 3-year-olds who meet twice weekly, the teaching team of the two-day preschool class is naturally aware of their children's concerns about power. Young children, who may feel powerless, are often attracted to the big and strong.

Two-day preschool classroom question

What are ways 3-year-olds feel powerful in our class? How can we empower them?

Two-day preschool classroom's Zoom—"A Super Friends' Story—Teamwork Picture Book." Zooming in on superhero play, and specifically on work involving a class book titled "A Super Friends' Story—Teamwork Picture Book," allows the teachers to see a progression in the children's thinking and concerns about power. The Super Friends book includes photos of the children working together to push a rock up a slide and the children's collective story of this effort. The teachers wrote this in their Zoom:

> Reviewing the photographs and transcripts, we notice a clear progression of events: first, the children tried to solve the problem [of pushing the rock up the slide] individually. Then they worked in pairs and threes. Finally, they tried working together while using tools.
>
> We are impressed with how they introduced the term *teamwork* to each other . . . [W]hen the photographs were shown at meeting, Daon commented, "It's teamwork!" and the class liked the term so much, they made it part of the book title.

Zooming in on superhero play and a class book titled "A Super Friends' Story—Teamwork Picture Book" allows the teachers to see a progression in the children's thinking and concerns about power.

Yvonne Liv-Constant

Supporting children's collaboration

Just as we embrace adult collaboration, we support children learning from and with each other (Project Zero & Reggio Children 2001). Insights on how to support children's collaborations, when adults are present and intentionally absent, emerge from the Zooms.

Heidi Givens

Three-day preschool classroom's Zoom—"The Searcher and the Merry-Go-Round: Moments of Insight into the Power of Sharing and Communication." The three-day preschool class has constructed a train from recycled materials for their Zoom. Accompanying it is a Zoom titled, "The Searcher and the Merry-Go-Round: Moments of Insight into the Power of Sharing and Communication." The Zoom explains that the train was constructed by pairs of children, each planning and building one car. It describes Phaidra, Eduardo, and their teacher Eva's effort to create a train car in which babies could play:

Three-day preschool classroom question

What does it mean to be a powerful participant in a classroom community?

Phaidra states, "This [tall foam triangle] could be a searching one, so if they lose something, they search with that. 'Cause it's kind of spinny." But Eduardo has a different idea: "No, no, no . . . this is for the kids to jump in here."

In order to support the sharing of ideas and dialogue between the children, Eva adds, "Eduardo, share your idea with Phaidra. Tell her what you were thinking about this piece. Phaidra, Eduardo had an idea about what this piece of the train was for."

Phaidra looks toward the train. Eduardo looks to Phaidra, establishing eye contact before he begins. Then he demonstrates his idea for how the kids will jump from piece to piece—his finger becomes a tiny baby excitedly jumping from one piece to the next. Phaidra is convinced by Eduardo's demonstration. She points to a tall pole at the front of the car and adds, "Oh, yeah! So maybe . . . so, the idea is that this piece could be the searcher, 'cause I put it in."

Both children's ideas have been seen and heard by all three members of the group, and both ideas have become a part of the train car . . . Each child is careful to capture the attention of the other group members before fully sharing her/his idea. Each child listens fully before responding. In the moments in which an idea is shared directly with the adult member, Eva is sure to engage the other child by directing the children to one another, encouraging them to speak with and listen to each other. Agreement is reached, as a space is created in which the children are able to articulate their motivations and be understood.

Ben Mardell

Kindergarten class's Zoom—"Making a Plan: The Construction Area Design Group." This Zoom accompanies the children's guidebook for their redesigned classroom. The Zoom analyzes a session in which three children, Eamonn, Henry, and Luis, without direct adult supervision, make a plan for their redesigned classroom's new construction area. Bringing together three perspectives about the construction area is not an easy task. The Zoom relates the small group's conversation outlining the work of the design group:

Henry worried, "What if we can't agree about what to do?" The teachers' response was to note that throughout the year, the kindergartners had learned about making small groups fun, fair, and good places to learn, and the teachers expressed confidence in the children's abilities to work together.

Eamonn, Henry, and Luis then began to work, taking turns making proposals by describing their ideas and moving the Post-Its around a floor plan. Their conversation is filled with the language of collaboration:

Luis: How about putting the risers here.

Henry: Yeah, yeah, yeah!

Eamonn: I was thinking the risers could be here and the blocks here.

Henry: How about the blocks on the risers?

Eamonn: No, not there.

Luis: What about next to them, here?

Eamonn: That's what I was thinking!

Henry: What do you think if we put the Legos here?

Eamonn: Good idea!

The Zoom goes on to describe the next 50 minutes of the boys' work, concluding with the teachers' analysis:

We find it striking how easily the boys accepted each other's critiques. While at times there were disagreements, conflict was nearly absent. Each boy had a say in the negotiations. Fairness seemed to be a guiding principle as Eamonn, Henry, and Luis worked to craft a collective plan. After our yearlong effort to build a democratic learning community, the boys' efforts during this session are gratifying.

Having a specific purpose and teachers providing structure for the session contributes to these 5- and 6-year-olds' ability to collaborate without direct adult supervision.

After further reflection, we would add that having a specific purpose and teachers providing structure for the session (for example, using sticky notes) also contributes to these 5- and 6-year-olds' ability to collaborate without direct adult supervision. For the younger group, the teacher's gentle social cues create a common focus for the children without curtailing their initiative.

Kindergarten class question

What do power and engagement look like in study groups? How can kindergartners engage themselves and their peers in small group learning? How can teachers facilitate their students' abilities to engage in these activities?

Reflections: Learning about creating a culture of inquiry in an entire school

There was a vision of a school where adults provide not only emotional support, but also intellectual support for each other.

Prior to the development of the Zooms, staff meetings were largely devoted to teachers bringing artifacts (videotapes, children's work, transcripts) that shed light on their classrooms' schoolwide inquiry questions. We used a protocol to structure our staff discussions. The goal was to create a learning community among the staff by sharing perspectives and expertise that would in turn generate insights about our practice. Our faith in group learning is strengthened by examples of powerful collaborations from across the disciplines and professions (John-Steiner 2000). We were influenced by the *Making Learning Visible* project (Project Zero & Reggio Children 2001) as well as by other thinkers who emphasize the value of collaboration in creating innovations. There was a vision of a school where adults provide not only emotional support but also intellectual support for each other.

The tricky part, of course, is putting this theory of group learning into practice. Formal discussions of the schoolwide inquiry topic are confined to monthly, hour-and-a-half staff meetings. An analysis of audiotapes of these meetings confirms that staff felt frustrated by the lack of time to listen to each other during the meetings. Ninety minutes is an inadequate amount of time for 15 people to voice their opinions. Quality of time is also an issue. Hearing about teaching and learning issues just once a month makes it challenging to focus on the concerns of colleagues from different classrooms. Overall, conversations were rushed. They did not achieve the depth possible for this group of educators.

So how has having the schoolwide inquiry and the Zooms, the data-driven reflections on teaching and learning, contributed to making the Eliot-Pearson Children's School a good place for the adults to get some thinking done about early childhood education?

We six are convinced that the Zooms contribute to staff efforts to create a community of inquiry for the adults at the Children's School. The public nature of Zooms allows for the sharing of and reflections on children and teaching practices. The Zooms make it possible to discuss and modify ideas, which leads to collective understandings about teaching and learning.

Specifically, Zooms increase the amount of time adults can listen to one another outside the monthly 90-minute staff meetings. From reading and rereading the panels, teachers note patterns and connections among the five classrooms. Zooms also change the quality of our listening at staff meetings. They remind us of our questions and interests. Staff are now more

David Robinson

Zooms change the quality of our listening at staff meetings. Staff are now more familiar with one another's theories. We don't start our conversations from zero.

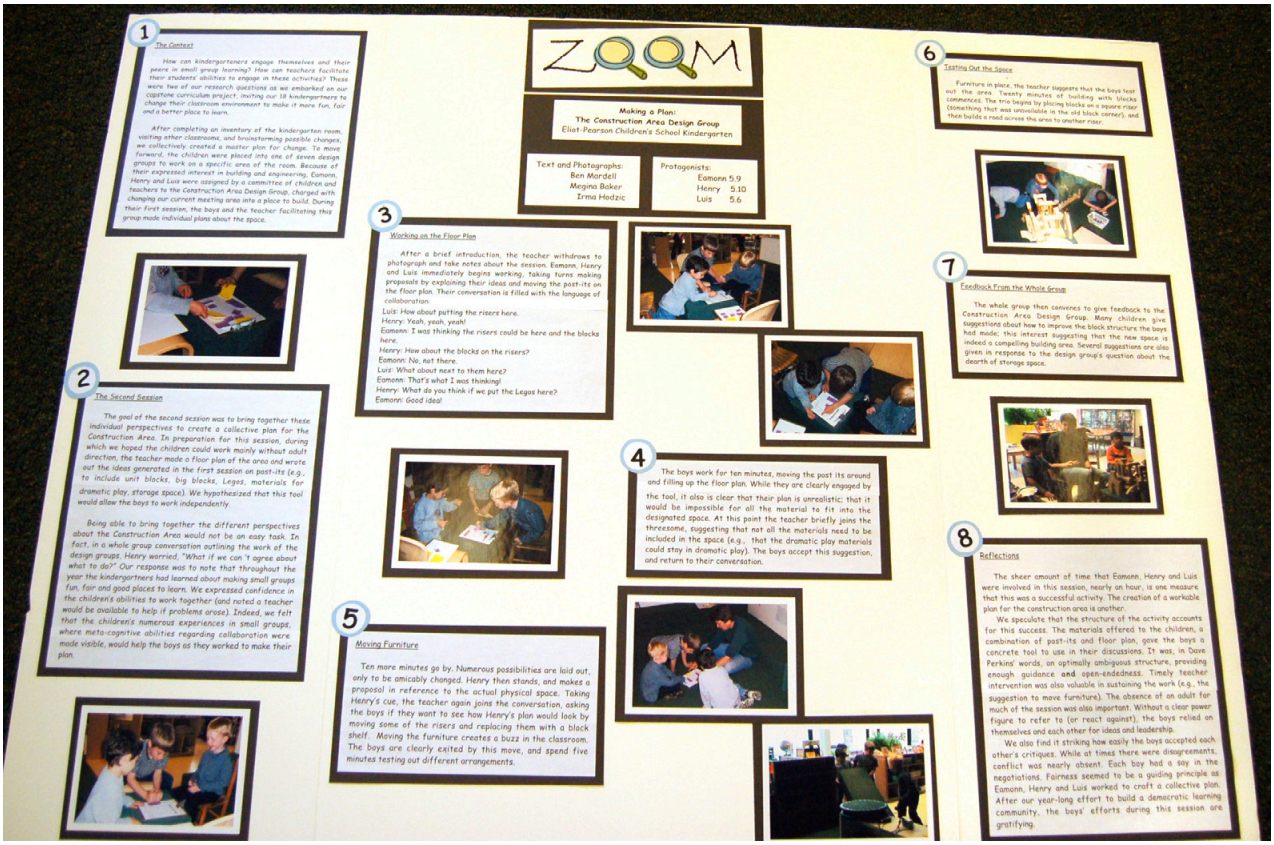
familiar with one another's theories. We don't start our conversations from zero, and we can listen to each other with greater sensitivity. Zooms are particularly helpful to new staff members, introducing them to the school's culture of inquiry.

This is true not only for the faculty, but for families as well. After visiting the exhibition, parents commented on learning about educational practices at the school through the Zooms. One parent explained, "I didn't realize how everything [my child] was doing at school worked together until I read the Zoom." Other families expressed their appreciation for learning about the approaches taken in all the classrooms.

While the process—conversations that stretch over the year—is critical to our learning, having a product to strive for—Zooms—is also important. This assignment turns each teaching team's efforts into a project. Rather than just reporting on problems (for example, Rich and Martha are having trouble getting along), creating a Zoom points us in the direction of what each team considers an ongoing, epistemological question (How can we help Rich and Martha learn together?).

Listening is an essential element in all the interactions described in the Zooms, including the two-day preschool class's work moving a rock up a slide, Eduardo and Phaidra's discussion about their train car, and Emily and Joe's dialogue about what they learned from their conversation. Listening is also an essential element in considering our staff meetings. This reinforces Rinaldi's idea of listening having importance for both adults' and children's learning.

Finally, Zooms influence the entire staff's identities as educators. Here, we teachers put forward our own thoughts and interpretations about teaching and learning. Rather than just being consumers of education theory, teachers become creators of knowledge about the field. The Zooms validate one of the rationales for undertaking teacher research: to give teachers a voice in the conversation about teaching and learning.



Heidi Givens

We have begun to think about each Zoom as an integral piece of a whole—unique in its classroom story, yet part of the answer to our common questions.

Conclusion: The relationship between adults' and children's learning

One of the guiding principles Debbie LeeKeenan uses in her leadership of the Eliot-Pearson Children's School is that there is a strong relationship between what happens in the staff room and the classroom. How teachers are treated influences how they treat children. How teachers learn influences how they teach.

Megina Baker's experience as a new graduate teaching assistant at the school speaks to this relationship. Megina found she gained a better understanding of the inquiry-based instruction in the kindergarten room, where she teaches, after engaging in the schoolwide inquiry and discussion at staff meetings. The Zooms are an integral part of this inquiry process, highlighting how documentation can support learning. Similarly, for many at the school, the honesty, directness, and caring seen in Emily and Joe's conversation is inspirational to staff communication. If 4-year-olds can give each other useful feedback, then certainly adults can as well.

Thus the reciprocal relationship between the children's and teachers' approaches to learning is highlighted in this teacher research project. As we promote the culture of inquiry, we learn about teaching young children; and as we learn about supporting children's capabilities, we strengthen our adult culture of inquiry.

The practice of collective inquiry is evolving at the Eliot-Pearson Children's School. It has become one of the cornerstones of professional development as we educators continue to work together to increase our understanding of teaching and learning. Although the Zooms continue to capture exemplary moments from our classrooms, the structure of how we use this tool has evolved. We have developed a unifying aesthetic for the panels that considers layout, ratio of pictures to text, graphics (such as the use of mounting and font style and size), text structure and flow, and balance of child and adult voices. All of these elements contribute to better communication of a Zoom's message.

We have also begun to think about each Zoom as an integral piece of a whole—unique in its classroom story, yet part of the answer to our common questions. An examination of classroom moments in a later inquiry—a look at Rinaldi's pedagogy of listening within the school context—revealed common trends and insights into classroom practice. Over several months, we have refined our understanding into five interrelated yet distinct aspects of practice: consideration of activities, setting, values and beliefs, social overlay, and cognitive factors. Once defined, each of the final Zooms not only tells the story of an insightful classroom moment, but also reflects one of the five valued aspects of our teaching and learning. Collectively, these Zooms tell a more complete story of the process of our schoolwide inquiry and growth as a community of learners.

Going public in multiple arenas has served to both deepen and muddy our work. In our attempts to invite multiple stakeholders into the dialogue, we have made an already challenging process even more complex. Yet, it is this very complexity that pushes us to more clearly define and articulate our own thinking and values—in fact, to tell our own story. As our collaborative questions continue to emerge and grow, so too does the evolution of the Zooms; and with the evolution of the Zooms comes the wisdom and identity of our community.

Copyright © 2009 by the National Association for the Education of Young Children. See Permissions and Reprints online at www.naeyc.org/about/permissions.asp.

References

John-Steiner, V. 2000. *Creative collaboration*. Oxford, UK: Oxford University Press.

Project Zero & Reggio Children. 2001. *Making learning visible: Children as individual and group learners*. Reggio Emilia, Italy: Reggio Children.

Project Zero, Cambridgeport School, Cambridgeport Children's Center, Ezra H. Baker School, & John Simpkins School. 2002. *Making teaching visible: Documenting individual and group learning as professional development*. Cambridge, MA: Project Zero.

Rinaldi, C. 2006. *In dialogue with Reggio Emilia: Listening, researching and learning.* London: Routledge.

Appendix

Listening and Learning: A Kindergarten Zoom

In May, near the end of the school year, staff concentrated on ways to communicate their thinking about listening, the schoolwide inquiry topic. Each teaching team had been assigned one of the five domains—setting, activities, values/beliefs, social overlay, cognitive factors—to base their classroom questions on. The teams each chose a moment from classroom life around which to create a Zoom panel capturing some of their thoughts on listening. The kindergarten Zoom focused on cognitive factors. Here is an excerpt from that Zoom.

Kindergarten Question

How do the kindergartners think they become better at listening? How can teachers support this reflection?

Context

Throughout the year, we have engaged the students in reflection about listening—from individual interviews to small- and whole-group discussion and from drawing assignments to visits to the teachers' listening wall. The children have had many opportunities to listen, including the daily sharing time, when questions and feedback are provided by peers about presented work.

Provocation

During the March 30 sharing time, a group of four children received feedback about an exhibit they were preparing for the class's mini-museum. They received many compliments and suggestions.

A week later, the teaching team used photos and quotes to tell the kindergartners a story about sharing time, and then we asked,

- What do you think helped you listen and learn together here?
- Do you think that having sharing time every day helps you get better at listening?
- Does hearing about stories of listening help you get better at listening?

Children's responses

Max: You would listen more because each time you would listen more and more.

Sam: Because practice makes perfect.

Max: Yep, practice makes perfect. My dad always says that.

Nino: I like Sam's idea.

Caroline: I sort of agree with Sam, but not all the way. I don't agree all the way because nobody acts the same way as the other kids. So it's probably not actually perfect, but really great.

Max: I agree with Caroline. Because nobody's perfect.

Caroline: Yeah.

Max: Except for God.

Caroline: Yeah, except for God.

Ben: Did you like looking at the feedback session, and did that help you listen better?

Nino: Yah, because it helps you make practice.

Jessica: Because I like listening to stories.

Children's reflections

Later, the teachers asked the children their opinions of this theory that practice makes almost perfect.

Charlie: Of course it helps to practice. Like when I had my old bike.

Emily: For some kids it would help, but not for everyone. It depends on who they are. . . . I listen better when the person is listening to me.

Robert: You can get better by washing out your ears because lots of stuff is in our ears and it makes it so you can't hear as well.

Gabby: Sitting on my mommy's lap helps.

Phaidra: From last year I got better at listening. Even though I sat next to my best friend, I got better 'cause whenever Heidi read a story, I would always listen.

Joelle: Games help me listen.

Larissa: It's easier to practice with other things. How can you practice listening?

Teacher analysis: Yet another question

For some children, the answer to how to get better at listening is connected to how one gets better at anything: practice. Other children are less sure. For them, listening is different from, say, riding a bike. How can you practice listening, anyway?

Over the course of the year, we have attempted to support children's reflections about listening. Our belief that narrative and images help this effort has been strengthened. Children's abilities to discuss listening have expanded. While still identified as a physical act that is related to paying attention, the ability to listen is now also connected to security, interest, and reciprocity.

Why is it important that children reflect on listening? We think that listening is like other skills in that understanding listening and having strategies to improve help in getting better.

Our efforts to support children's reflections have made clear that listening is hard to define because it can be hard to see and looks different in different situations. A next step in this inquiry may be asking, What is our image for listening?