CONNECTIONS
. . . bridging educational research and practice

• Urban Education Studies Center: A Center for Research and Innovation in Elementary Education •
at the UCLA Graduate School of Education & Information Studies

Multiple Representations Aid Children's and Teachers' Work

by Lisa Rosenthal and Andrea Michaelson

Multiple representations offer opportunities to both assess and to further children's learning. Encouraging different forms of expression also can make lessons and curricular content more accessible to a greater number of students.

Assessing young children's understanding of the curriculum is a complex task. Standardized tests and other measures give teachers and parents only part of the picture. Creating opportunities for children to demonstrate their understanding in a variety of ways can offer a more complete view of what children know and what they need to learn while also providing the context and the motivation for children to deepen their understanding.

Writing in journals, drawing pictures, creating clay models, illustrating story boards, discussing concepts with the teacher, a parent or with peers—these methods for creating multiple representations help children use various skills or intelligences to demonstrate what they know about a subject while also offering opportunities and motivation for them to learn more. With each representation of an idea, set of ideas or concepts the child connects meaning and deepens understanding.

In this article we offer examples of how we have woven opportunities for multiple representations into a science unit on the life cycles of plants for our K-1 class at Corinne A. Seeds University Elementary School (UES). We believe the methods we describe here are relevant to instruction at all elementary grade levels.

Educational Philosophy

A discussion of our methods begins with an understanding of our educational philosophy. We believe that optimum learning takes place through the development of a curriculum that:

- honors the role of all participants—teachers, children and parents
- engages children in long-term projects and in-depth study
- offers opportunities for children to communicate their thinking using a variety of media
- provides a fertile learning environment

Each child is seen as a strong, competent individual with his/her own cultural experiences, learning style and prior knowledge. Parents are acknowledged as having ideas that are invaluable to learning experiences in the classroom. The teacher is seen as a researcher, a co-learner with children and a collaborator with peers. The teacher's role is to acknowledge these strengths and assure that they become part of the classroom experience. Listening to and collaborating with students, colleagues and parents is an ongoing process and is essential to the teacher's professional growth.

In addition, we believe a rich learning environment should reflect children's thinking and ideas so as to invite response, provoke discussion and provide the teacher with data to reflect upon, assess and plan collaboratively.

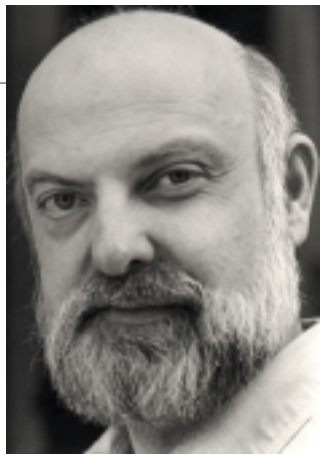
A comprehensive curriculum uses all these elements to encourage

continued on page 4

WINTER 2002

Also in this issue:

Frederick Erickson is New UESC Director



The Urban Education Studies Center is proud to welcome as its new director Professor Frederick Erickson, who joined the Center after Deborah Stipek was appointed dean of the School of Education at Stanford University last year.

Dr. Erickson is George F. Kneller Professor of Anthropology of Education in the UCLA Graduate School of Education & Information Studies. His research combines scholarly with applied interests. He has been involved in the development of theory and methods in contemporary ethnography, sociolinguistics and discourse analysis, and has been an innovator in video-based analysis of face to face interaction. His work focuses on issues of educational equity and reform in schools, communities and families. His approach identifies the workings of ethnicity, race, class, gender and language and culture within formal and informal educational processes. He is currently involved in developing digital multimedia representations of teachers' and students' daily work in classrooms.

Dr. Erickson earned his Ph.D. from Northwestern in 1969. He has taught at the University of Illinois, Chicago; Harvard; Michigan State; and the University of Pennsylvania, where he directed the Center for Urban Ethnography.

Among the organizations with whom he has consulted are the National Education Association, the National Institute of Education, the National Institutes of Health and the National Academy of Sciences. His sponsored research includes support by the National Institute of Mental Health, the National Institute of Education, the Spencer Foundation and the Ford Foundation, as well as grants from the Fulbright Commission and the British Council. Among Dr. Erickson's publications are the books *The Counselor as Gatekeeper: Social Interaction in Interviews* and *Sights and Sounds of Life in Schools*, as well as many articles.

The recipient of numerous honors and awards, he was a Spencer Fellow at the Center for Advanced Study in the Behavioral Sciences at Stanford University in 1998-'99, and in 2000 was elected a member of the National Academy of Education. In 2001 he was the Charles di Garmo Lecturer of the Society of Professors of Education, meeting with the American Educational Research Association's annual meeting (*see page 9 for an excerpt from his address*).

Susan John Joins UESC as Associate Director

Susan John recently joined the UESC as associate director after earning her Ph.D. in Education and Human Development at UC Berkeley. Her research focuses on qualitative studies of teaching, learning and development in classrooms.

At Berkeley she worked on the Math-at-Work Project, a research project that compared how middle school students and adult designers work on mathematical problems in the context of architectural design and population modeling. Her thesis focused on how a group of students learned and used mathematics as they worked on real-world problems.

Currently Dr. John is working with UESC Director Frederick Erickson and UES demonstration teachers to document the teachers' classroom practices. A goal of their project is to document the "behind-the-scenes" work that teachers do to support students' science, math and literacy learning in inquiry projects. One of the intended products of this work is a database, which will include videotape of classroom conversation, examples of student work and interviews and commentary by teachers, and can be used by experienced teachers interested in project-based instruction as well as teacher educators in conversation with prospective teachers.

Dr. John earned her undergraduate degree in developmental psychology from New York University.

CONNECTIONS

CONNECTIONS is published twice yearly by the UCLA Urban Education Studies Center: A Center for Research and Innovation in Elementary Education.

Contents © The Regents of the University of California, 2001. Portions of this newsletter may be reprinted with our written permission.

Write to: UESC, Corinne A. Seeds University Elementary School, Box 951619, Los Angeles, CA 90095-1619.
***phone** (310) 825-2623 • **fax** (310) 206-4452*

Director, Frederick Erickson; ***Associate Director,*** Susan John; ***Editor,*** Laura Weishaupt

Helping Parents Promote Their Children's Learning and Motivation

by Kathy Seal and Deborah Stipek

A book by a former UES parent and the former UESC director offers advice and strategies for motivating children and raising them to love learning.

Ideally, the intellectual transition between school and home would be seamless. Home life would enrich and deepen students' school learning, and families would join teachers in fostering responsibility for schoolwork and a love of learning in children.

In the real world, however, keeping schools and families on the same page is easier said than done. Most parents and teachers can use some advice on how to bridge the gap between home and school environments.

In our book, *Motivated Minds: Raising Children to Love Learning* (Henry Holt & Co.), we rely on 30 years of research on academic motivation to give parents both broad principles and specific strategies for promoting their children's motivation to learn and success in school. This article offers a sampling of those tips.

Connect School Learning to the Real World

One of the best ways for parents to nurture children's desire to learn is to show them the relevance of school learning to daily life. To do so, however, parents must know what their children are studying in school. Teachers can help parents by outlining the curriculum at parents' night, during a parent-teacher conference, or in a newsletter or note home. A few words at drop-off and pick-up time for younger children may also prompt parent support.

Once they're informed, parents can make fractions come alive by asking kids to help them halve a cookie recipe, or highlight the relevance of proportions by asking a fourth- or fifth-grader to compute her batting average. If children are studying the solar system, parents might suggest they watch the sunset together, then ask them to explain what they are seeing.

Parents can also expand on school topics by taking their children to the local museum or mission when the class is studying Native Americans. When their child is learning about conservation, they might point out a newspaper article about recycling. The more children see such connections between school learning and their lives outside of school, the more they will take interest and pleasure in learning.

Many parents don't realize that immersing their children in diverse experiences increases their desire to learn in school. A visit to the lake or seashore, to a museum or a farmer's market nurtures curiosity, builds vocabulary, and gives children a broad base of knowledge that enhances the meaning of book learning. Simply conversing with children builds verbal and thinking skills, and helps develop the secure emotional base of a trusting relationship that children need to thrive in school.

Role modeling counts too. Parents who read books and magazines give the message that reading is fun, not just something you have to do for school. Even the most harried parent can model intellectual interests by talking about current events at dinner or in the car, mentioning what interests them in a movie or on television, or sharing the magazine article they've read in the dentist's waiting room. Certainly these are more effective strategies for parents than telling children to "go read a book," while continuing to watch television.

Avoiding Performance Pressure

Today's nationwide emphasis on testing is bound to raise children's anxiety. Parents can minimize such worries by emphasizing learning over performance, and focusing on each child's effort and individual improvement, rather than comparing them to siblings or friends.

For example, parents might ask, "What did you learn in school today?" five times for every "How did you do?" They can also teach kids to value mistakes ("Let's look at the errors on your math test and see if we can figure out what you're

continued on page 4

Motivation

continued from page 3

not understanding") and praise their willingness to take on a challenge even when it doesn't lead to success. Ironically, research has found that when students focus on learning more than on performing well, they not only enjoy academic work more and have greater motivation, they perform better on tests!

Autonomy

Research shows that students who have some choice and control over their learning tend to be more enthusiastic than kids who are told exactly what to do, and when and how to do it. A good idea is for parents to provide "choice within a framework." For example, parents might develop (with their child's participation) rules about whether homework should be completed before any TV or video games, but allow the child to choose which homework to do first or where to do it.

Parents can also give kids a sense of autonomy by being available to assist with homework without hovering. For children who do need assistance, we show how to help while building their skills, confidence, and sense of responsibility, rather than creating dependency and helplessness.

What About Rewards?

We do not rule out using rewards to motivate children. We do, however, offer some research-based guidelines for their use.

For example, parents can use rewards to "jump start" a child reluctant to try something new. After the child has developed some competence, which will bring her pleasure and the motivation to continue her music lessons or math homework, parents can usually drop the reward. If they've tried in vain to interest a child in a task (such as memorizing the multiplication tables) the promise of a reward may be in order. Research shows that rewards signaling a specific accomplishment or skill are best, since the competency feelings they provide are motivating in and of themselves.

But parents should use rewards sparingly. That's because rewards tend to shift children's attention away from the enjoyment of an activity, and to the reward itself. If a child enjoys reading and you offer him pizza for reading ten books, he might start skimming the books quickly to get the reward. Even worse, when you stop offering pizza, he might wonder if reading is still worth doing.

Before resorting to rewards, parents should try praise. Approval that provides specific information – "Your story is very vivid! I can see the meadow you're describing!" is much better than "That's a great story," because it nourishes feelings of competence, spurring a child to learn more.

These are just a few examples of the advice our book offers parents. Our hope is that *Motivated Minds* will help parents support and extend children's learning, so that families and schools will work hand in hand, encouraging children to succeed in school and enjoy learning throughout their lives.

Kathy Seal is a journalist whose sons graduated from UES. Deborah Stipek is dean of the Stanford University School of Education and former director of the UESC. Dr. Stipek's daughter also is a UES graduate.

Representation

continued from front cover

children to construct their own knowledge while also guiding them toward achieving the larger learning goals.

Identifying Skills, Concepts and Methodology

In planning a lesson or unit of instruction, we identify skills, concepts and methodology to guide instruction and decide which experiences to offer children to spark curiosity and prompt inquiry.

For our science unit we decided to use plants to illustrate life cycles. The *California Science Framework* recommends that for the plant life cycle, children's observations and experiences include seed germination, pollination, plant growth, survival needs of plant organisms, change and decomposition. We based the activities we developed on these recommendations, as summarized in the following outline.

Concepts to develop:
Characteristics of organisms and life cycle of organisms

Guided Framework Questions:

1. What are the characteristics of living things?
2. How do living things change throughout their lifetime?
3. What do living things need to live and grow in their environment?
4. What is the life cycle of a living thing?

Skills to Develop:

- make observations in the internal/external environment
- use different resources to research information
- represent understanding in a variety of media

continued on page 5

Representation

continued from page 4

- communicate ideas verbally
- generate inquiry
- record observations/data
- make predictions
- use tools for investigation
- work independently and cooperatively
- build vocabulary

Providing a Rich Environment and Resources

We believe a classroom should be a comfortable, inviting environment that is flexible and allows children to modify the arrangement of spaces as needed for their learning.

In our classroom we display children's work to make their ideas visible and stimulate interactions. These displays can prompt children to ask questions, make clarifications, offer explanations and engage in discussions. We try to make sure materials and resources are easily accessible so as to foster independence and autonomy. We also try to choose materials specifically suited to support learning goals and to offer opportunities for children to demonstrate understanding.

To create a rich environment for the lessons on plant life, we filled the classroom with different kinds of texts on the life cycle of plants, leaves, flowers and trees. We designated areas in the classroom where we displayed different kinds of leaves, seeds and plants for the children to observe. We provided tools such as magnifying glasses and microscopes so students could examine things closely. We displayed documentation of children's work in progress that highlighted their understanding of the concepts. And we generated an on-going list of the words students used to describe their sensory perceptions related to the area of focus. The purpose of the list was to make visible the special lexicon associated with the study of plants (see Figure 1).

As teachers, we support exploration and risk taking, thinking beyond the usual. Opportunities for experimentation and the use of many different techniques help children to express their ideas creatively. We try to use unconventional materials and tools to guide the children toward the learning goals. For example, in one lesson we gave children jute as a canvas and plant materials collected from their schoolyard to make a collage. Some children tied collections to their work. Some used the jute as a canvas and painted on it. Other children glued plant materials to the canvas. Some children used flower petals to graphically represent a plant or tree. This activity helped children explore the natural environment more closely. Transforming their materials into drawing tools helped them to make closer observations and to see the materials in a new way.

Figure 1. Children created similes using the list of words they generated to describe leaves.

Firsthand Experiences as Material for Discussion

Firsthand experiences provide children with the ability to connect prior knowledge with newly acquired knowledge and the opportunity to apply learning to their everyday lives. They also offer interactions to stimulate inquiry and discussions and incentive to research and learn more.

We began the first lesson by asking questions to assess prior knowledge and to provoke thought and exchange: "Where do we find plants?" "What do plants need to grow?" "What things are made from plants?"

The class explored these questions by discussing what they had observed about their home and school environments.

We then guided children in conducting experiments to determine optimal conditions for seed growth. They made predications and then recorded their findings in journals. Using their knowledge gained from the experiments, they planted seeds in individual cups, in their gardens at home and in a communal garden so they could watch them germinate and grow.

During a field trip to Descanso Gardens in La Canada, California, the children observed firsthand what they had learned and connected it to their classroom experiences.

Throughout the process we assessed the connections children were making by reading their journals and engaging them in or listening to their discussions. In particular, we looked for evidence that children were grasping scien-

continued on page 6

Representation

continued from page 5

tific concepts and evolving in their thinking. We compared the language they used and the ideas they expressed after their experiments and their field trip to those in the earlier discussion.

Examples of Multiple Representations

Among the benefits of multiple representations are that they help children: (1) communicate their thinking; (2) deepen their understanding of concepts; (3) see their ideas translated into different languages such as art, movement, song and drama; (4) provoke interactions, discussions and inquiry about their work; and (5) access meaning as well as create their own meaning.

We use these representations to assess our process, stimulate creativity and make visible children's learning. In looking at children's representations we ask ourselves whether we are providing enough information. Discovering what is missing from children's work helps us know what is missing from ours. The process gives us information about how to plan and allows us to assess the curriculum we have developed. Representations also invite response on the part of other children, teachers, parents and visitors to the classroom, all of whom contribute to our dialogue and our thinking.

Plant Life Cycle in Animation. For example, children represented their understanding of the life cycle of a plant (from seed to flower) by drawing each stage of the process in a flipbook format (see Figure 2). Creating a believable "moving picture" required planning and conceptualizing. Children had to take apart the stages, think about how to draw them, and focus on the details of the process as well as see them as part of a larger whole. The activity also offered opportunities for teachers and children to see how well children were grasping the concepts and where the gaps in their understanding lay. In addition, the activity provided motivation for the children to seek out resources and do further research to fill in those gaps so they could create workable flip books.

Parts of a Flower in Clay. Children in two classrooms represented their understanding of the parts of a flower two-dimensionally in clay. Many of the benefits were the same as for the flip books, applied now to the individual parts of the flower. In addition, shaping models from clay gave children a better sense of the physical dimensions of the flower parts.

Figure 2. Flipbooks illustrate children's understanding of the life cycle of plants.

Parts of a Flower in Print. For this activity, children etched the names of the flower parts in foam (see Figure 3). When they tried to print their etchings they discovered that the words were inverted. After the children made several attempts to write the words so they would print legibly, a facilitator asked questions to illicit ideas about how to solve the problem. After discussion, one child came up with a solution, to write the words backwards. The children tested this suggestion and found it successful.

In using language children learned more about the parts of a flower as well as developed their reading and writing skills. Communicating about their ideas helped children refine their thinking and their problem-solving skills. In this activity children also used a lexicon not applicable to the clay representation. In this way, multiple representations helped to broaden the depth of study.

Discussion and Revision

In discussing their work, children gain a deeper understanding of a concept, acquire increased ability to communicate their ideas verbally and realize any gaps in their understanding of a concept.

With each revision, their understanding becomes more concrete and they increase their ability to communicate more clearly.

One example is seen in a discussion between a teacher and a student, Rebecca. As Rebecca was making a print and was ready to label the parts of her flower, the teacher asked her to point to the flower's stamen. Rebecca replied that she wasn't sure which was the stamen and which was the stigma. After the teacher asked her to point to what she thought was the stamen, and reminded Rebecca that a flower has more than one, Rebecca remembered and was able to identify the part.

continued on page 7

Representation

continued from page 6

Similarly, we asked children to draw a line from the flower part to the corresponding word. This identification reinforced children's understanding of the parts of the flower while helping them build a scientific lexicon.

Finally, children created step-by-step graphic representations of the process of pollination in the form of storyboards (see Figure 4). As one child explained her drawing to the teacher, they both noticed that there were steps missing from her explanation. When the teacher asked the child to clarify her ideas about germination, the child used her body to show how the stem breaks through the seed coat. In communicating through body language the child demonstrated her understanding and clarified her ideas. She then was able to make revisions to her original storyboard frames.

Inquiry/Research

As children represent and discuss their ideas, inquiry arises. This process intrinsically motivates children and leads them to further investigate and research their questions and ideas.

For example, as one child described her understanding of pollination to her classmates, storyboard in hand, a question arose regarding an idea in her representation. The child had shown that a bee can pollinate two flowers of the same kind in different colors, but some of her classmates disagreed, believing that the two flowers must be of the same color. Motivated to prove her hypothesis, the child sought the most readily available resource, the expertise of the gardener on the school grounds. The gardener confirmed that yes, certain flowers can be pollinated in different colors, thus supplying the information and also demonstrating the value of doing research and going to an authoritative source.

Figure 3. Children label the parts of a flower in print.

Figure 4. Creating and revising storyboards helps children demonstrate their understanding of the process of pollination.

The children's discussion demonstrates one of the values of multiple representations. The more children represent their thinking and talk about their representation, the more likely it is that inquiry will arise. When children have the opportunity to discuss their representation (such as a storyboard) and communicate about or verbalize what they have done, they engage in critical thinking.

Identifying a Need for Systematic Instruction

Perhaps the teacher's most important role is to know when and how to provide children with knowledge and resources to take their learning to the next level. To do this, he or she must constantly make choices about pedagogical approaches, deciding which approach is best suited for the purpose. Oftentimes it will be direct instruction to teach a lesson on a concept that children are confused about, or for which other developmentally appropriate resources are not available. Lessons that emerge out of the children's inquiry rather than being planned by the teacher *a priori* have the advantage of being presented to a more receptive audience. Children are more likely to pay attention to or remember what is said when they have sought the information themselves.

Because children's representations reveal the gaps in their learning, they can help teachers know

continued on page 8

Representation

continued from page 7

what lessons to present based on what information is needed. Teachers can determine what knowledge children need to acquire by listening to their ideas, assessing their work and planning collaboratively to redefine tasks to meet more specific goals.

Added Benefits

The purpose of both formal and informal assessments is to reveal to the teacher and student what the child knows and needs to know. Assessments also can indicate what the teacher needs to provide to ensure that children are meeting learning goals and acquiring knowledge of concepts.

Creating multiple representations has the added benefit of furthering children's learning and deepening their understanding. In addition to showing what teachers need to do to strengthen their instruction, the representations can provide a means for children to learn more. By encouraging different forms of expression they also can make lessons and curricular content more accessible to a greater number of students.

Lisa Rosenthal is a K-1 demonstration teacher and Andrea Michaelson is an art consultant at UES.

This article is adapted from A Comprehensive Approach to Curriculum Development, from the Proceedings of the Symposium in Honor of Lilian G. Katz, Issues in Early Childhood Education: Curriculum, Teacher Education, and the Dissemination of Information, to be published in Spring 2002 by ERIC Clearinghouse at the University of Illinois at Urbana-Champaign.

Photos by Andrea Michaelson

Center Fellowships Nurture Work of Young Researchers

Each year the UESC offers fellowships to graduate students interested in doing research related to K-12 education. Fellows work closely with teachers and researchers at Corinne A. Seeds University Elementary School (UES) at UCLA to explore issues and develop further inquiry.

2000-2001

Daniel Battey worked with Education Professor Megan Franke to develop a framework of student thinking in algebra. Mr. Battey said his work with teachers at UES helped him investigate the development of student thinking and different ways to integrate algebra content into the elementary school curriculum. He added that the collaboration with teachers was useful in generating ideas about how to engage other teachers in integrating algebraic thinking in their classrooms.

Jean Cadigan worked on the UES Safe School team. She participated in several different facets of the program, including observing lessons taught to all grade levels by Safe School Coordinator Ava de la Sota, conducting an observation project with the youngest UES students to determine how many of the Safe School skills they use on the yard during recess, and attending many of the staff and parent meetings associated with the program. Ms. Cadigan also worked on a project to interview students from the previous year's 6th-grade class to understand what impact Safe School had on them as they moved on to middle school.

Ani Moughamian worked on several projects at UES related to literacy. In addition to observing literacy instruction in K-1 classrooms and talking with the teachers about how their students develop literacy, Ms. Moughamian was involved in documenting the development of narrative skills in several young students. In addition, she was a research assistant on the Literacy Development Checklist project, a research project headed by Education Professor Alison Bailey to aid teachers in working with children who have early difficulties developing literacy, and worked with a group of students in the SRA/McGraw Hill corrective reading program.

2001-2002

Charles Framularo is collaborating with UES teacher Hasmik Avetisian to incorporate museum visits into the curriculum for 8- to 9-year-olds. Focusing on ideas of identity and self-representation, the children have visited two exhibits at the UCLA Fowler Museum and created art in the spirit of the work they saw. The goal for the project is to design instruction that conveys how art teaches us about who people are, what values they hold and what they believe in, as well as familiarizes children with museums and their practices and communicates that museums are a great artistic and cultural resource.

From Research *On* Teaching to Research *In* Teaching:
How I Have Been Learning to Collaborate With Teachers in the Portrayal of Their Work

by Frederick Erickson, UESC Director

The following is an excerpt from a presentation at the American Educational Research Association's annual meeting 2001, held April 10-14 in Seattle, Washington. Session # 1301, Charles di Garmo Lecture

In the past 50 years, the American research university has become more and more dependent on external research funding. As a result, the kind of research that's been done in education has moved farther and farther away from the subjective life-world of the primary service providers in our field, classroom teachers. I see the move away from the daily experiences of teachers in the direction of accounts of it by outside experts, and the evolution of a conventional educational research and development loop, as a very mixed blessing.

In brief, the conventional process is that someone at the university develops new curricula or studies teaching practices, and then through some dissemination process delivers this news to teachers as relatively passive recipients of fresh knowledge about how to do things better. But because the new knowledge comes from the academy, from research work often funded by the federal government or large foundations, the effect has been to further marginalize the knowledge of the practitioner, the teacher in the classroom. We've come to believe that really good knowledge comes only from the academy and gets downloaded on the teacher through continuing professional development, teacher education or, now, mandates from the federal government about standards for practice. This process passivizes and, at its worst, infantilizes the knowledge and work of teachers…

One of the turning points in my career that led me to move from doing this kind of research *on* teaching to doing research *in* teaching happened when I became involved in a collaborative action research project at Michigan State University that we called Teacher Development and Organizational Change, in which we worked with three early-grades teachers.

As part of that project, professors from the school of education at Michigan State University came to the classroom at least once a week and spent an entire morning or afternoon. We made a contract with the teachers that each time we came, the visitor and the teacher would write no more than two half-sized pages of recollection of something that we noticed. Then we collected what everyone wrote and each week added copies of the pages to one binder in the principal's office at the school and another that went on a file cabinet in our office in the School of Education building. Everybody got to read what everybody wrote every week. We did this from February to June, and then started again the following fall.

During that second year I had been working with Fran Minnick, a second-grade teacher who joined our group after one of the other teachers went on leave because of an illness.

On a very warm October afternoon, Fran and I were sitting in her classroom with the bottom reading group. We were both very uncomfortable; indeed, that day the bottom reading group was excruciating for all concerned. The students seemed bored. One after another, they read haltingly from the basic basal reading text. Fran looked at me with a pained expression as the least adept reader in the entire room got stuck in his turn at reading aloud …

Afterwards, I went home very upset. What would I say in my journal entry? I felt I must write about the bottom reading group, but I didn't want to offend the teacher.

Finally, after waking up at two o'clock in the morning, I wrote my two half pages. I decided to say what I really thought and felt. I took a deep breath and began to write. I said that what was going on in the bottom reading group seemed to contradict what Fran had told the students on the first day of school was a main aim of hers—that the classroom that year would be a place where it was safe to make mistakes.

At the beginning of the year Fran had told me she had two big concerns: one was what she called the "spread"—she thought there was a wide range in what the kids were able to do in that year's second-grade class, a wider spread than she had had for a long time. She also thought it was very important to make it safe for kids to make mistakes. The fear of mistakes was a serious barrier to learning. Yet six weeks later, there we were in ability-ranked reading groups, the whole notion of which contradicted the teacher's aim for safety.

In my journal entry I wrote that such ranking made the bottom group an occasion for the public

continued on page 10

Collaboration

continued from page 9

display of incompetence. I tried to say this respectfully, as to a colleague, but it was a kind of candor I had never practiced in my previous work as a so-called nonjudgmental participant-observer, who wasn't participating all that much. Having written my entry I went back to bed and slept fitfully.

I drove out to the school in the morning with a sick feeling of unease. I liked Fran. I thought she was a good teacher. Would she think I was just another smart-ass from the university? When Fran read my entry that evening she was at first offended. Then she remembered that she valued my concern about her students and she believed my journal entry reflected that concern. She called Kathy, a first-grade teacher next door, who suggested that she try using the children's own writing as material for all the reading groups.

A day later, when I drove out to the school to face the music and see what Fran thought, she was very forthright. She said her first reaction on reading what I wrote was, "Who does he think he is?" But she'd been uncomfortable in the bottom reading group too. By the time I saw her, she had resolved to try to do something different with reading as one way of dealing with this problem of the "spread" that she saw.

In the next few weeks, she totally reorganized her reading program, having the least skilled writers dictate their stories to her and to other children. This was a profound breakthrough for her, in the way she approached reading. It was also a deep breakthrough for me in my relationship with her as a colleague. I broke out of this pattern of classic participant-observer ethnographic stance, in which during interviews the researcher never says what he or she really thinks to the person being interviewed. It's only a kind of Rogerian echo response that you give—you never really communicate your true thoughts and feelings to the "informant" or "research subject". I decided I wasn't going to do any more of the kind of distanced observing that I had done before, but rather work more and more collaboratively with teachers.

I then moved to the University of Pennsylvania and became involved in two projects where we did just that. One of these was called "Taking Stock and Making Change." We worked with five elementary schools and created with each one a school self-study team, which involved the principal and a group of teachers, some of whom were members of a school governance council.

The teams looked around their schools for issues they wanted to address and reflected on what was going on with an idea toward making some kind of change. In one school a research question that developed was, "Where are all the reading books in the school?" It turned out that there were all kinds of instructional materials that had been squirreled away by various teachers over the years, under inner-city school conditions of shortage and hoarding. As a result of beginning to look and make it okay to talk about where the books were, a whole set of relationships around literacy instruction began to change in the school.

In another school, teachers began to look at the issue of kids getting into fights and hollering racial epithets on the playground during lunch. As they began to observe and to take stock, they were initially concerned that the lunchroom aides who supervised the kids on the playground were hollering at the kids, and then the kids were hollering at each other. In the course of their inquiry, the teachers began to realize that they never talked to the lunchroom aides. They had never asked them anything about what *they* knew. What resulted was a joint research project with the lunchroom aides and some of the teachers looking at the way in which the recess was organized and making some deep changes. This quickly resulted in a sharp drop in the number of kids who got sent to the school nurse with bloody noses, and in the number of kids who got sent to the principal for having hollered a racial slur at someone else.

So it seemed that practitioners themselves, with a little bit of outside help, had the capacity to study their own circumstances and come up with insights that made a difference.

The second University of Pennsylvania project was inspired by a teachers' research group, the Teachers' Learning Collaborative. This is a group of teachers in Philadelphia who have been meeting every Thursday after school to talk about their practice and about individual children. The group continues in existence with some change in membership. A few of the original members who are still there were very much influenced by Patricia Carini and her ways of helping teachers look at children's abilities and interests. One of the things that Carini had done in the Prospect School that she founded in Bennington, Vermont, was to keep longitudinal records of children's written work and drawing, across all the grade levels, in what she called "an archive of children's work." From that we came up with the idea of an archive of teachers' work—an interactive archive

continued on page 11

Collaboration

continued from page 10

using digital multimedia, to which teachers would contribute examples of the *how* of their practice and its development. The idea was that other teachers might look at these materials and see some of the backstage details of how they pulled off certain kinds of instruction. Since the teachers were part of the National Writing Project, we focused in our pilot work on the teaching of writing in the early grades.

Under the direction of the teachers we videotaped and collected student work, the teachers made comments on the work, and we put everything together into a prototype interactive multimedia archive. This permitted a virtual visit to the classroom. You could click with your mouse on the photo of a student and a screen would come up that showed all the information contained in the archive about that particular student. You could then click again and see that student in a small group brainstorming story ideas, then switch to a clip of that student writing the story, and to another in which the student was having a writing conference with the teacher about the first draft of the story. If you wanted to, after looking at the clip of one child brainstorming a story idea, you could switch to another child and see her brainstorming a story idea. We set up the archive so that potentially you could approach it to pursue a range of different issues and questions.

For example, you could say, "I wonder how the teachers sets things up in the first few days of the school year." Clicking with your mouse you could review the teachers' daily journal entries and look at video clips of the first few days of school. The purpose of such an archive was to support richer, more focused conversations among teachers than those which typically occur, as well as to provide primary research materials for university-based researchers.

Now I am involved in a similar project with teachers at UES. We're developing digital libraries of their practice, under their direction, with similar aims to those in the Philadelphia prototype. The school as a whole is interested in developing its web site to include video and other materials that show in detail how we do certain things in instruction at the school, and to make this available in limited-access ways on the Internet for continuing professional education relationships with other teachers—dialogic relationships, in firsthand contact and also in virtual contact—relationships that respect what the teachers know to start with and then try to build on that foundation toward further growth of insight and practice. This is not "best practice," mind you, for even that label and that conception is patronizing; it absolutizes practice, and in so doing, trivializes it.

In this process of working increasingly collaboratively with teachers, however, I don't work my way out of all the power differences, by any means. …I am, however, in a more collaborative relationship than before. The portrayals of practice that we do are done together, with the teachers having very strong editorial say over what gets into these portrayals. We can't control what others will see in them and that makes for some risks for the teachers to be involved, but at least they are subjecting themselves to the risks with their eyes as open as we can possibly make them together. It's not that I get to watch them, interview them without ever telling them what I really think, and then go off and write my stories and "put their business in the street" as the social scientist with special privilege to expert knowledge and insight.

continued on back cover

Are you on our mailing list?

Fill out this form to (check one):

❑ add a friend's name ❑ add your name ❑ make a correction ❑ remove your name from our mailing list

Name_____ Preferred Mailing Address:

Street _____ Apt. or Suite # _____

City _____ State _____ ZIP _____

School/Institution _____ Phone ( ) _____

Position_____ Subject areas of interest _____

Mail to: UCLA/UES, CONNECTIONS Editor, Mailbox: 951619, Los Angeles, CA 90095-1619

Collaboration

continued from page 11

…To conclude, one of the best reasons for getting out of the R & D loop, besides the inherently patronizing relationship it sets up between professors of education and teachers in K through 12 schools, is illustrated by a joke about the agricultural extension service that I remember hearing as a child. We should not forget that one of the earlier models for the present-day education R & D loop *was* the agricultural extension model. In my home county in Minnesota, Meeker County, I grew up hearing this joke.

As the story goes, it is the 1930s and a county extension agent, an employee of the state government, comes out to visit a farmer. He explains about soil erosion, the development of hybrid seeds and all sorts of things that will help the farmer increase his yield if he changes his daily farming practices. The farmer listens politely to this sales pitch; then the agent, in a final flourish of rhetoric, says to the man, "And so you see, Mr. Jones, if you adopt these new ways of farming, it's very likely that you can increase your yield in corn next year by 30 percent!"

And Mr. Jones looks at this young man and says, "Then it's not worth bothering with, 'cause hell, son, I ain't farming now half as good as I know how to already!"

Professors of education are going to be continually in that kind of dialogue with school teachers and administrators unless we figure out ways to work ourselves out of the traditional R & D loop—something they learned about in the agricultural extension movement of the 1930s.

A resource for nurturing children's literacy—EarlyLiteracyInstitute.org. Log on and tell us what you think...

The UESC is working with Corinne A. Seeds University Elementary School to adapt the highly successful UES Early Literacy Institute for the Internet. The goal is to build a web site where teachers, researchers, parents, administrators, community members, policy makers and the press can get clear, helpful and comprehensive information about how children become skilled, smart and passionate readers and writers. To tailor the site to the needs of our audience, we are conducting a user interest survey at:

http://www.EarlyLiteracyInstitute.org

Whether you're a teacher interested in video demonstrations of effective classroom practices, an administrator seeking examples of how to address challenges in literacy teaching and learning, or a parent looking for tips on how to assist your child in learning to read, EarlyLiteracyInstitute.org can provide guidance and a forum for collaborating with others who are committed to and passionate about helping children learn. Log on today and let us know what you think!

Connections
UCLA/UESC **EE-15**
Seeds University Elementary School
Box: 951619
Los Angeles, CA 90095-1619

Nonprofit Org.
U.S. Postage
P A I D
U C L A

address correction requested