



RESEARCH CENTER HAS A NEW NAME

The Urban Education Studies Center has been renamed CONNECT: A Center for Research & Innovation in Elementary Education. In making the announcement, Director Frederick Erickson said the change was made to better represent the Center's purpose as an organization that brings researchers, practitioners and others together to examine a variety of issues and ideas in elementary education and child development. "Just as our UES teachers' purpose is to help children from a wide variety of backgrounds to connect with the curriculum, and to connect the curriculum with real world experiences, our aim is to connect research on teaching and learning with the everyday lives of teachers, children, parents and schools," he said.

Part of the UCLA Graduate School of Education & Information Studies (GSE&IS), the research center was established in 1991. Since then it has fostered research and curriculum development in the areas of action research, safe schools and curricular areas such as mathematics, literacy and science. Research center faculty and graduate students continue to work closely with educators from Corinne A. Seeds University Elementary School, the laboratory school of UCLA's Graduate School of Education & Information Studies, and from K-12 schools throughout Southern California.

Following Kids, Not Scripts

by Susan Jurow

When classroom teaching and learning follow children's ideas, interests and questions, motivation and understanding are enhanced. A look at the organization of teaching and learning in two K-1 classrooms reveals that among the keys to engaging with students are: identifying and acting on "teachable moments"; drawing on experts to expand knowledge in the classroom; and encouraging students to make connections across multiple forms of representation and experiences.

Following kids, not scripts¹ is one way of describing the kind of classroom practice in which children's ideas, interests and questions lead learning, as opposed to teachers or curriculum leading instruction. When teachers follow scripts, they talk and behave according to pre-established roles and power relationships in which the emphasis is on teaching rather than learning (Gutiérrez, Rymes & Larson, 1995). Monologic teacher scripts are based on the assumption that teachers determine what counts as knowledge in the classroom and who can contribute to this knowledge. A goal of this article is to create a detailed description of how following children's ideas allows for genuine dialogue between classroom participants, which often leads to unexpected paths and opportunities for expansive learning.

Over the three years that Ms. Rosenthal and Ms. Santini have worked together, the children in their multi-age (5- to 7-year-olds) and bilingual (Spanish and English) classrooms have collaborated on a number of long-term science projects, which typically culminate with the children constructing a joint final project. This article



Ms. Santini and her K-1 students meet to discuss their science observations.

continued on page 4

¹ Thanks to Frederick Erickson for this phrase and to the members of the research project for numerous conversations about the organization of teaching and learning in these classrooms.

What's So Special About Special Education Class?

Reprinted from the *Los Angeles Times*, VOICES / A FORUM FOR COMMUNITY ISSUES
August 31, 2002

by Jennifer Goldberg

As Congress considers reauthorizing programs for students with disabilities, I find myself contemplating third grade.

I don't remember a lot from that year, but I do remember feeling stupid because I was pulled out of class to go to a special reading group.

Why was I sent to this group? Because it took me a long time to complete reading worksheets. The experience left me painfully aware of being different. In the middle of third grade, my "reading problem" suddenly disappeared. The reason was simple: My family moved.

My new school placed less emphasis on worksheets. This better suited my learning style, and I was placed in an advanced reading group. In turn, I was excited about having the opportunity to learn and felt a sense of relief as my categorization of being slow or possibly learning-disabled was lifted.

By sheer happenstance, I was taken out of a school that did not work for me. Other children are not so lucky.

When it comes to education, one size does not fit all.

We are stuck in a Catch-22. Given the structure of our educational system, labels are necessary to provide vital services to students. Labels provide funding to support teachers who are trained to teach students with diverse needs and to provide speech and orthopedic therapy, classroom aids, smaller class sizes and appropriate textbooks and materials. But with this critical funding comes the labeling and categorizing of students.

Special education is not a response to pathology or inadequacy. Instead, special education is the response of a complex educational system to human variation. Students in both special education and regular education classes have diverse needs that must be met by this vast system.

Yes, there are kids with disabilities. But what does that mean? Shaquille O'Neal is an outstanding basketball player and has been named the most valuable player in the National Basketball Association finals three times. Yet he has consistently needed special assistance in making free throws. I don't think anyone would argue that he is basketball-impaired because of this special assistance. Everyone needs assistance in some context.

As a teacher and student, I am outraged when I hear people make a distinction between "normal" children and other children. While teaching in a middle school, my heart sank when a student exclaimed to my whole class, "I don't want to go with the stupid kids"—referring to studying with students with disabilities.

One in every eight students in public school participates in special education. With numbers like that, what does it mean to be "special"? Who's different?

Jennifer Goldberg is a UCLA graduate student in Education and a 2002-2003 CONNECT doctoral research fellow. She taught special education for five years.

Education Research Examined

CONNECT Director Frederick Erickson and Education Professor Kris Gutiérrez have written a paper responding to national efforts to make education research more evidence-based and scientific. In their article, Erickson and Gutiérrez draw critical attention to what it means to be "scientific" and argue that educational change is complex and requires "all kinds of research and deliberation, scientific and nonscientific" and "it needs practitioner research." The article appears in the November 2002 issue of *Educational Researcher*.

Institutes Focus on Literacy

UES and CONNECT are hosting two institutes for teachers focusing on children's early literacy. Participants in the *Early Literacy Institute*, now in its sixth year, attend workshops led by UES demonstration teachers to examine issues and learn about the latest research on early literacy then visit UES classrooms to see literacy learning in action.

The *Reflective Teachers, Active Learners* Institute, sponsored by the University of California Office of the President, focuses on English Language Learners. Participants in the institute, which recently held a one-year

reunion, developed strategies for looking at and thinking carefully about their teaching practices and students' work to support children's literacy learning.

Safe School System Being Field Tested

UES, CONNECT and the Santa Monica-Malibu Unified School District are collaborating to evaluate and refine the UES Safe School system. The safe school methods developed at UES provide a systemic means to fostering the physical, mental, emotional and social safety of all members of a school community.

UES teacher Ava de la Sota is leading the effort to implement the newly revised system, called *Cool Tools*, at Roosevelt Elementary School. As part of creating a locally-relevant Cool Tools system, Roosevelt faculty and staff are developing a set of norms and expectations regarding acceptable social behaviors in the school community.

CONNECT doctoral research fellow Christine Ong is conducting observations in faculty meetings and on the playground and surveying teachers, students, administrators and parents to evaluate the implementation process.

Using the Visual Arts to Address Issues of Identity

by Charles Framularo & Hasmik Avetisian

The arts are a powerful educational tool because they can encourage children to engage their personal experiences and cultural histories in order to understand or create an artifact. Through the creation of art projects such as murals and self-portraits, students can investigate their personal experiences and shared cultural histories.

Over the past year we worked with second- and third-grade students at UES on projects focusing on the representation of identity through art. We visited three museum exhibits focusing on, respectively, the Chicano movement, the Lega of Nigeria and the Chumash Indians of Southern California. Our goal in visiting these exhibits was twofold. First, we wanted to engage children in conversations about the meanings of artifacts and other works of art as a way to understand another culture's beliefs, values, philosophy and way of life. Second, we wanted to encourage children to examine their own identities and produce art objects representative of themselves or their communities.

One of the exhibits we visited was *Just Another Poster?* at UCLA's Fowler Museum. The exhibit examined the politically-motivated poster art of the Chicano movement of the 1960s, which was created at a time when Chicano identity was about to be appropriated and erased. Artists fought against such erasure by creating images to express who Chicanos were, where they came from and what had happened in their past. They wanted to use images to show a collective history and thus unite the Chicano people.

This exhibit sought to present a "comprehensive exploration of the critical role posters and other graphic

materials play in building community, stimulating political action, and impacting social and cultural consciousness" (*UCLA Fowler Museum News*, Spring/Summer 2001, p.1). It did this by displaying the artwork of Chicano artists of the past 30 years that sought to visually represent and recreate Chicano identity.

Prior to visiting the museum with the students, we toured the exhibit with Jose Montoya, a graphic artist whose artwork was featured in the show. Montoya spoke with us about how the posters were born out of the movement as an effort for Chicanos to recreate and define their political and ethnic identities. The message he wanted the students to take away from the exhibit was that regardless of their race or culture, they should be proud of who they are as unique individuals. This message tied in with our focus on helping children explore and represent their identities using the visual arts.

At the exhibit, we focused on a selection of works that addressed issues of identity. We considered the different ways through which artists represented themselves, from the more obvious, such as use of words or photos, to the more subtle, such as choice of color or simplicity of line. We asked the children to consider how the artists used visual means to assert their own identity; then in the classroom, we asked them to create their own self-portraits using mixed media.

The two classes worked on the self-portrait projects for two weeks. Children brought in objects from home that were important to them and that they felt represented who they are. The result was an eclectic mix that included photographs of family and friends, tickets to sporting

events and amusement parks, trophies, rings and stuffed animals. The students also used words, paint, feathers, rocks and other media to elaborate on their collages. The students carefully considered the various meanings that were conveyed by their in-progress designs, making decisions about which objects to include and how to best position them. Each student was asked to create three versions of their self-portrait, which allowed them to experiment with the materials as well as the meanings they were trying to convey.

By viewing and engaging in discussions about the arts of other cultures and by critically addressing the visual representation of identity, the children in these classrooms created work with a high degree of sophistication, complexity and self-awareness. Their success with the project shows that the arts can be empowering if we provide opportunities for children to reflect on who they are and give form to their experiences and imaginations.

The arts are one of the most effective tools in cultivating self-awareness, self-respect and personal empowerment and, moreover, in getting children excited about learning. Furthermore, in using the arts to think about and explore different cultures and forms of social and political identity, we can help children develop an appreciation and understanding of the value of cultural diversity.

Charles Framularo is a UCLA graduate student in Education and was a 2001-2002 doctoral research fellow at Corinne A. Seeds University Elementary School (UES). Hasmik Avetisian is a teacher of pre-kindergarten and art at UES.

Kids, Not Scripts

continued from front cover



The roller coaster carries messages between two adjoining classrooms.

looks at one project in which the children designed and built a roller coaster that could carry messages from one adjoining classroom to the other.

My focus is on the final day of the project when the children were discussing the different forms of energy represented in the roller coaster. It illustrates routine aspects of Ms. Rosenthal and Ms. Santini's classroom practice that support children's learning in the context of long-term projects. The examples show how the teachers engaged with students to identify and act on "teachable moments" or occasions that they viewed as ripe for extending students' understandings, drew on experts to expand knowledge in the classroom, and encouraged students to make connections across multiple forms of representation and experiences to develop deep conceptual understanding.

The Study

The analysis reported in this article is based on data collected as part of a collaborative ethnographic research project documenting the behind-the-scenes and long-term work of classroom teaching. The project members include three K-1 classroom teachers, Lisa Rosenthal, Alejandra Santini, and Doris Levy, and a team of researchers, Frederick Erickson, Jennifer Goldberg and myself. The information sources for this study consist of digital recordings of the roller coaster

project as it unfolded over the year (approximately 45 hours of tape), observational fieldnotes, documents and artifacts created by the students and examples of student work.

The Roller Coaster Project

The roller coaster project developed out of a year's worth of activities that began with the investigation of matter, followed by the study of the movement of matter, and evolved into the study of the physics of motion and energy. Students' work on the project was guided by the teachers' belief that providing children with first-hand experiences and enabling them to represent what they know in multiple ways, through oral and written language, drawing, painting and movement, allows them to develop deep and connected conceptual understandings (see Rosenthal and Michaelson, 2002).

To support the development of children's understandings, the teachers made strategic use of their extended classroom community, which included children in both classrooms, classroom support teachers, other children at the school, and parents. The kindergarten and first-grade students worked with one another to read, write, discuss ideas and plan what they needed to do in the project. A parent with experience in design work collaborated with the teachers to help the students design and build the roller coaster. Another parent, a physics professor, led a demonstration and discussion on gases and molecules for the children and acted as an expert resource on the study of physics over the course of the project.

By creating a learning environment full of diverse representational resources, meaningful experiences and levels of expertise, opportunities emerged frequently for children to share their understandings with one another and to learn through their interactions with peers and adults.

Case Study: Following Kids, Not Scripts

This case examines how teachers follow students' ideas and create opportunities for students' ideas to become a leading edge for learning. The events described in this case took place on the final day of the roller coaster project. Thus, the conversations and interactions between the classroom participants that occurred on this day were the result of numerous experiences provided throughout the year, opportunities for children to represent their understandings using a variety of media, and opportunities for children to discuss their emergent ways of knowing about physics and energy.

continued on page 5

Kids, Not Scripts

continued from page 4

To appreciate how one student's confusion about the relationship between energy and speed led to a new understanding for all the students about the transformation of energy, it is necessary to describe how the class had been talking about different forms of energy up to this point in the project. Over several weeks, the class explored the concepts of potential and kinetic energy. For example, to give students first-hand experiences with energy, Ms. Rosenthal asked students to bring in toys from home that represented the different forms of energy. One student, Lily, brought in a spring toy, which was used in subsequent discussions as an exemplar for showing the relationship between potential and kinetic energy. Lily wrote that when the spring toy is pressed down it "is potential. The energy goes in the spring. Then when you let it go that is called kinetic." The teachers and the students used the metaphors of "gaining" and "storing up" to describe potential energy and "losing" and "letting go" to describe kinetic energy.

As students talked about energy in relation to their built roller coaster, their description of the relationship between potential and kinetic energy was complicated by the introduction of the notion of speed (i.e., the speed with which a message-sending ball travels along the track of the roller coaster). The case consists of three episodes that document how teachers, students and classroom experts engaged in conversations aimed at turning current understandings into occasions for developing deeper knowledge.

Episode 1: It's GAINING speed not LOSING speed

In this first scene, Ms. Rosenthal and a group of students are labeling the places on the roller coaster where potential and kinetic energy can be found. The children are sticking directly onto the roller coaster labels that have the terms, in English and Spanish, "potential energy/energía potencial" and "kinetic energy/energía kinética." Labeling the roller coaster allowed the children to use their reading abilities in the context of developing understandings of physics and provided a way for the teacher to assess what children understand. The following interaction illustrates:

1 Adam: (places the "energía kinética" sticker on the downhill portion of the roller coaster) This is kinetic energy because potential is energy is energy that is gaining energy and kinetic is ener- is leaving energy.

2 Ms. Rosenthal: So why did you choose to show it as it is going down?



Adam places the "energía kinética" sticker on the downhill portion of the roller coaster.

3 Adam: Because it's, it's losing speed

4 Ms. Rosenthal: It's losing speed, okay.

5 Adam: (to the other students) Even though it is GAINING speed, it's losing speed.

6 Ms. Rosenthal: Even though it is what? Even though you feel-

7 Adam: It's GAINING speed not LOSING speed.

Adam accurately places the *energía kinética* sticker on the downhill portion of the roller coaster track because that is where energy is being released. When asked to explain why he did this, he says that it is because it is "losing speed." He then expresses doubt about this answer because he has observed that when the ball goes down the track, it is "gaining speed".

In this interaction, Adam confuses one of the metaphors the class has been using to talk about kinetic energy, "losing" energy, with a commonly used metaphor for talking about speed, "losing" speed. At line 6, Ms. Rosenthal indicates that she has heard the contradiction in Adam's response even though this comment was directed to his peers. She was not sure what Adam was trying to say and rather than focusing on the official, correct answer, which Adam provided (i.e., placing the *energía kinética* sticker on the downhill portion of the roller coaster), she decided to follow his thinking.

Ms. Rosenthal identified this as a teachable moment, one in which she could pursue Adam's contradictory statement to initiate a conversation that would make

continued on page 6

Kids, Not Scripts

continued from page 5

his current understanding visible and possibly allow them to create new understandings together. For the next few minutes, Adam, Ms. Rosenthal and the other students labeling the roller coaster discussed what they knew about potential and kinetic energy and how it related to what they knew about how a ball behaves as it moves along the roller coaster track. Based on her conversation with the students and their misconceptions regarding speed and energy, Ms. Rosenthal decided to bring her local conversation to public attention in a whole-class discussion.

To set the stage for the discussion, Ms. Rosenthal drew a diagram of the built-roller coaster on the board, identifying where Adam placed the energía kinética sticker. She then asked Adam to share what he thought with the class:

1 Adam: It looks like it's losing energy when it's going up and then it's gaining energy when it's going down.



Luis helps Ms. Santini guide the class through a diagram of a traditional roller coaster.

2 Ms. Rosenthal: Is that what's happening? What's happening Bradley?

Ms. Rosenthal invited other children to help make sense of the situation and found that other students were also struggling with how to talk about energy and its relationship to speed. By positioning Adam to explain his confusion to the class, Ms. Rosenthal created an occasion in which one child's ideas were used to encourage other students to share their interpretations of the situation.

Episode 2: You never lose energy

During her break, Ms. Rosenthal shared her students' discussion about energy and speed with Ms. Santini and a parent/physics professor, Mr. Bourne, who stopped by the classroom. In response to Ms. Rosenthal's question regarding the relationship between energy and speed, Mr. Bourne explained that the faster you go the more kinetic energy you have, but you never actually lose energy—it just goes from one form to another. As he explained:

1 Mr. Bourne: You're at the top of the hill and you're rolling down the road, right? As you roll off the hill, you lose your potential energy, but you...

2 Ms. Santini: Gained your kinetic energy.

3 Mr. Bourne (simultaneously): ...gained your kinetic energy. And this always—they never, you still have the same amount of energy, it's just in two different forms.

4 Ms. Rosenthal: It's just been converted.

5 Mr. Bourne: From one form to the other...

Through their conversation with Mr. Bourne, the teachers realized that although they had been talking to the children about different forms of energy, they did not discuss the notion of the transformation of energy explicitly with their students. By revisiting the students' ideas and bringing them into contact with a member of the classroom community who is more expert in physics, the teachers were able to extend their understanding of how to help children understand physics.

Episode 3: That's just like...

Immediately after this conversation, Ms. Santini shared her new understanding with her students. In reference to the discussion with Ms. Rosenthal and Mr. Bourne, she created a diagram of a generic roller coaster on the board to anchor a discussion about the transformation of energy. Guiding a student's finger along the diagram of the roller coaster, Ms. Santini led the class in identifying where potential energy and kinetic energy can be found along the track of the roller coaster, emphasizing the points at which one form of energy would be transformed into the other.

At the end of this conversation one student, Manuel, notes that the transformation of energy on a roller coaster is "just like" when he and his classmates run up and down a hill near the school. In identifying similarities between two different kinds of situations, Manuel connected the abstract notions of "kinetic" and "potential" energy with an everyday activity in which the class engages.

continued on page 7

Kids, Not Scripts

continued from page 6

Capitalizing on Manuel's insight, Ms. Santini decided to take the class to the hill so that they could personally experience the transformation of energy in their bodies as they ran up and down the hill. At the hill, Ms. Santini suggested that the students connect the formal academic language they were learning to describe the movement of matter—potential and kinetic energy—with their experience of running up and down the hill. The children ran up the hill shouting “potential energy”, at its top they shouted “maximum potential” to indicate the point at which potential energy is transformed into kinetic energy. On their way down the hill, they shouted “kinetic energy” and at the bottom they shouted “maximum kinetic” to indicate the point at which energy is again transformed. In this way, Ms. Santini used Manuel's insight to extend the experiences and resources that the class could use to deepen their understandings.

Summary

In this article, I presented a snapshot of the final day of a long-term project to highlight aspects of how teachers engage in following kids, not scripts to support students' learning. The analysis focused on three routine aspects of Ms. Rosenthal's and Ms. Santini's classroom practice: identifying and acting on teachable moments, drawing on experts to expand what is known in the classroom, and encouraging students to make connections across multiple representations.

First, the teachers arranged occasions for students to share their understandings and took advantage of these opportunities to identify and act on teachable moments. As in the exchange between Ms. Rosenthal and Adam, the teachers and students created zones of proximal development (Vygotsky, 1978) in which teaching and learning were directed towards the student's potential



The children run up the hill shouting “Potential energy!” and race down the hill shouting “Kinetic energy!”

level of understanding. The dialogues that occurred on these occasions did not follow scripts or have predetermined outcomes. The conversations were, however, informed by the teachers' understandings of how children learn and their specific instructional goals, which helped the teachers in assessing students' understandings and responsively organizing the direction of the interactions.

Second, the teachers made use of expert resources to extend students' and their own understandings of concepts and how to teach them. As their discussion with Mr. Bourne showed, Ms. Rosenthal and Ms. Santini act as both teachers and learners in their classrooms. This attitude mirrors how the teachers view their students—as capable of contributing to and challenging the emergent knowledge of the classroom.

Finally, by encouraging the students to represent concepts using multiple semiotic resources including formal academic language, physical models (e.g., the built-roller coaster) and kinesthetic experience, the

continued on back cover

Creating a Thinking Curriculum Institute Wins National Prize

The National Telecommunications Partnership Awards program, sponsored by the SBC Foundation and the National Association of Partners in Education, recently selected the *Creating a Thinking Curriculum Institute* as a Grand Prize Winner in a competitive national program. The awards recognize exceptional educational partnerships that help teachers integrate telecommunications technology into classroom instruction. The Institute was one of two grand prize winners and one of 13 organizations honored through the program this year.

The *Creating a Thinking Curriculum Institute* was developed through a partnership between Local District D in the Los Angeles Unified School District, Corinne A. Seeds University Elementary School (UES), the UCLA

Graduate School of Education & Information Studies, the UCLA/SBC Pacific Bell Initiative and the Los Angeles County Office of Education. Through the partnership, the Institute empowers teachers to provide learning experiences that help students gain the knowledge, skills and behavior necessary to succeed in the 21st century.

The Institute, now in its second year, helps teachers shift from a traditional teaching approach to a student-centered approach, incorporating technology as a critical aspect of the learning process. So far it has helped 50 teachers and seven principals reach 480 students. The goal is to reach 25,000 students in 44 schools by the end of the Institute's fifth year.

Kids, Not Scripts

continued from page 7

teachers created possibilities for students to develop rich and oftentimes unexpected connections between ideas. By following kids, not scripts, Ms. Rosenthal and Ms. Santini challenge the traditional organization of teaching and learning in classrooms in which teachers are the sole authorities and students are the recipients of static knowledge. Instead, in their classrooms, the teachers and students jointly create and negotiate the processes of teaching and learning so that students' ideas and interests can lead learning and development.

References

Gutiérrez, K.D., Rymes, B., & Larson, J. (1995). Script, counterscript, and underlife in the classroom: James Brown versus Brown v. Board of Education. *Harvard Educational Review* 65 (3), 445-471.

Vygotsky, L. (1978). Interaction between learning and development. In L.S. Vygotsky, *Mind in society: The development of higher psychological processes* (pp. 79-91). Cambridge: Harvard University Press.

Rosenthal, L. & Michaelson, A. (Winter, 2002). Multiple Representations Aid Children's and Teachers' Work, *Connections*.



What do good literacy teaching practices look like?

What methods work in different classrooms?

Become a part of our ongoing conversation about how to help children become engaged readers and writers.

Participate in our online survey to help us build a website that addresses the issues **important to you...**

www.EarlyLiteracyInstitute.org

CONNECTIONS is published twice yearly by CONNECT: A Center for Research and Innovation in Elementary Education. Contents © 2003 The Regents of the University of California. Portions of this newsletter may be reprinted with our written permission. Write to: CONNECT, UCLA Box 951619, Los Angeles, CA 90095-1619 • Phone (310) 825-2622 • Fax (310) 206-4452 • Director, Frederick Erickson • Associate Director, Susan Jurow • Editor, Laura Weishaupt

CONNECT: A Center for Research & Innovation in Elementary Education
UCLA Box 951619
330 Charles E. Young Drive North
Los Angeles, CA 90095-1619

Nonprofit Org.
U.S. Postage
PAID
UCLA

EE-15



address service requested