Promoting Creativity in Early Childhood Classrooms:
Front Porch Series Broadcast Calls

Gail Joseph: On behalf of my colleagues and I at NCQTL, I'd like to welcome all of you to our broadcast call today. Today, we are focusing on creativity. And creativity is found in the Head Start Child Development and Early Learning Framework under Creative Arts and Movement, but many people consider creativity as more than art and music. And in fact, Albert Einstein once said that "to raise new questions, new possibilities, to regard old problems from a new angle, requires creative imagination and marks real advance in science." So indeed, he connects creativity to science. And we also know that to have a good idea, whether it is – be in math or solving a problem with a peer or thinking about what to paint, you have to have lots of them, and this takes a creative mind.

It is a delight to introduce our featured speaker to help us think about creativity in young children. Dr. Nancy Hertzog is currently a professor in educational psychology at the University of Washington, and also the former director of the University Primary School at the University of Illinois Urbana-Champaign, where she was a frequent collaborator of Dr. Lilian Katz. Dr. Hertzog is best known for her work in gifted education, and she finds creative thinking to be a fundamental foundation of this work. And so now, without further ado, I'm going to turn it over to Dr. Nancy Hertzog.

Dr. Nancy Hertzog: Thank you, Gail, and thank you, everyone, for giving me this honor to present to you today. This is one of my favorite topics. So I want to just tell you, first off, that there are many ways to nurture creativity and curiosity in the classroom, and that teachers play a critical role in creating environments that foster students' critical and creative thinking. And hopefully, by the end of the session, you will all take away some ideas that you could start using today.

So what is creativity? Gail gave an excellent introduction to creativity; and it is started by the process of generating ideas. And contrary to what many people think, creativity doesn't always happen in a vacuum. And in fact, creativity – "creative activity rose out of the relationships between an individual and his or her work in a discipline and the ties between the individual and other people who judge his or her work." And that's a quote from Csikszentmihalyi, who's famous for all of his work in the area of creativity.

As teachers, parents, and the community, we all influence children's participation and development and can support or thwart creativity. The way that teachers play a big role in promoting creative thinking in children is to organize their environment. They start by creating well-organized classrooms, providing environments where children may take risks and feel socially and emotionally supported, and where children have opportunities to explore and create with varied materials. And this is exactly the foundation of the house framework for NCQTL.

Teachers, therefore, are important decision-makers. And this is a quote from one of my favorite authors, Feinberg and Mindess: "When we are stirred by a particular classroom and feel conviction about what

transpires within it, it is because the adult is a skillful diagnostician and clinician as well as teacher and is unambivalent about his or her role as the significant adult with responsibility for everything that takes place in the classroom."

So as teachers, today we'll talk mostly about the decisions that relate to developing this classroom environment to promote creativity. It relates to how you will design your space, how to make children feel comfortable to take risks and explore many ideas, and how the teacher creates not only a classroom community where individual ideas are valued, but where children learn about the synergy that can come from the group. So creativity starts with creative teachers, and creative teachers design environments for creative expression. They promote strategies for encouraging risk-taking, problem-solving, and collaboration. And the third thing we're going to talk about today is a way to initiate and include inquiry activities to engage children and encourage them to communicate what Lilian Katz always says to ask children: "What makes you think so?"

When we talk about the classroom environment, we're really talking about more than just the physical space; but the physical space includes the layout, the accessibility of materials and supplies, and the feeling and the aesthetic appeal that you get when you come into that physical space. And the emotional environment has to focus on the positive relationships – again, the foundation of the NCQTL house framework. And to do that, teachers need to be able to empower their students to take part and initiate their own learning.

I'm going to take a few minutes to tell you about the environments and the physical space that's inspired by the preschools in Reggio Emilia, Italy. This is a picture of a classroom in an early childhood center in Indianapolis, Indiana, that has been inspired by Reggio Emilia. And Reggio Emilia is not a person; it's a town in the Parma region of Italy, where Parmesan cheese is made. When I went there – I've been there three times – I brought back so many things to try out at University Primary School.

But to try to capture how it relates to our talk today, I want to focus on these three themes. One is the 100 languages of children; and that includes all the media and art that – all the graphic languages that children use to express their ideas. And that's what's helpful in promoting creativity: the use of multiple languages. Two: the pedagogy of listening. And listening in Reggio Emilia, it's a metaphor for observing children and extending their learning and thinking. And finally, the environment as the "third teacher" is putting things in the environment that provoke creativity and thought.

Let me give you an example of the 100 languages. And I'll start with the recycle center. In the Reggio schools, there is an "atelierista," an artist to help them use these media to express what they're learning and understanding about a topic or investigation. Many of the materials are recyclable. I was not allowed to take photos in the schools, but we were allowed to take photographs of the recycle center. And these next few pictures demonstrate the way that the materials are sorted by color and texture and the valuable ways in which children see palettes of materials. On the left is the fruits in the farm stands, and on the right are the materials sorted by the colors in the classroom. And I think this is an interesting

way of thinking about bringing the outside environment to the inside classroom. Teachers create many opportunities for students to represent nature and bring the outside inside.

When I was going back to University Primary School and taking what I had learned to the school, we thought about what we could do in our preschool classrooms, and today I'm just going to focus on a few things that we did. If we think about the environment as the third teacher, we tried to at least make the physical space attractive and use more natural materials, lack of clutter that you see in a lot of classrooms, and thought about the way light was hitting the children and the way to explore light. So, we brought elements of aesthetics. We brought back elements of representation, which I'll talk about later.

We always had student choice, but we encourage many more media in the student choices. So if we're doing one project making a representation and we're using clay, we might also give them choice of other languages – art, painting, different utensils.

And then I also want to talk about using inquiry as part of your environment. We embedded choice into their daily routine, their inquiry project, and their means of expression. Now, having come back from Reggio and doing research on the environment, it's not just because it's beautiful, but according to Hahn, results show that contact with nature, even if only through the inclusion of plants in the classroom, is beneficial for mood, aids recovery from mental fatigue, and improves behavior and health.

And finally, there's another study that shows about light. Authors reported that students in the classrooms that used fluorescent lighting and didn't have windows had highest production of stress hormones such as cortisol, the lowest classroom performance, physical growth, and the most absences due to illness. So the recommendation is the use of daylight tubes rather than fluorescent tubes in overhead classroom lighting, and particularly if there's a limited access to natural light. So, thinking about the windows and the light and plants and everything to give people a sense of balance so that they can be creative.

So, these are the things that we did in our extreme preschool classroom makeover. We were focused on putting materials in the environment that students could explore, we arranged materials aesthetically, we provided room for light experience, and we integrated natural materials into the classroom. So we took away the plastic buckets and brought in baskets, and then we asked students to bring treasures from home to personalize our recycle center.

In addition to all of the physical things, when we set out our areas and centers, we paid attention to details in absolutely every area of the room. So, these are some examples of organizing crayons and markers and pencils in color palettes. We created a recycle center where we organized the leftover material and sorted them by texture and color, and we encouraged the students to help us keep these buckets sorted – a great critical thinking experience to have kids sort by attributes.

At the writing table, we included sensory things as well as literacy. And at the listening center, we put tablecloths on and made it a really appealing place for children to want to go to listen to books, and especially put different languages out to share the multicultural diversity in our classrooms. We also turned our cabinet over and let children make a platform to build their blocks. And this encouraged different levels of play where they could actually – we put mirrors behind, it they could see. So this was another idea that we brought back from Reggio Emilia. They often put their blocks on tables and platforms. And again, at our literacy table, we set these things out aesthetically, we gave them particular tools to draw and make observational drawings, and we made it a pleasing place for the children to go.

These are just examples. I'm just going to flip through the pictures quickly so you can see examples of our light play. We used an overhead projector, and then we brought in paper so that they could try to capture the colors that they were seeing through the light. For our art, easel – easel painting. We put up pictures from the natural environment and then we encouraged them by putting a palette of colors out there. This is another example of materials put in the baskets and not plastic. And using – in this case, this was a math activity where we were using the materials of nature to do our sequencing activity.

I'm just sharing these pictures in terms of forming a community. We did self-portraits by using their treasures from home. And again, having them sort and categorize by attributes is a great creative and critical thinking activity. And then, again, putting their own treasures from home onto their self-portraits and making self-portrait class murals that will eventually contribute to that classroom community.

So I'm moving on now from the more physical, aesthetic aspects to the more social and emotional aspects of building a community and how to do this with creativity in mind. One of the most important things is that we provide many opportunities for children to speak out and display their strengths and present their ideas. This is an example of valuing the diversity – this was also taken from a picture in one of the Indianapolis classrooms – and showing that they themselves have strengths.

I'd also like to share, from Robert Fisher, ways of being an encouraging adult for children's thinking. His book, "Teaching Children to Think" – and it focuses on things that adults can do to enhance children's thinking. So, for example, notice that they allow time for children to come up with ideas, that they accept the children's decisions, that they actively listen, and they stress independence. All of these things, especially the last one – that you value their creative ideas and you integrate those into the children's learning – are important. You can also see that if you don't do these things, you could inhibit some of the thinking that children do, and especially making evaluations. Notice on the inhibiting adult side, the disapproving, the rejection of new ideas. This does not allow the growth of creativity.

Okay, one of the things that it says to allow for creative ideas is to give students initiative and maximize times when children have choice in their environment around them. So we want to make sure that all the early childhood classrooms have opportunities for students to make choice, and it's because it allows for differences in readiness and interests and learning profiles. And one of the most important things in promoting creativity is: allow children to explore their interests. And as Gail noticed in the

Framework – in the Head Start Framework, they talk about approaches to learning, and curiosity and initiative is definitely what we want to promote.

This is an example of a massive choice board, with the part in green being certain topics of project investigations. But when you look around at your choices, those that enhance creativity are ones that allow children to explore, create, and inquire. And I'm going to use one choice as an example. When teachers ask me what's the one thing they can do the next day that starts creative thinking, I suggest they start with the choice of boxes and junk. And boxes and junk are free; they're recyclable materials. These are examples. "This is my dump truck. The spaghetti box is the dump thingy." And, "It doesn't stand very well."

So when children create out of these boxes and junk and then try to explain what they're doing, they're not only enhancing their creativity skills, but they're also enhancing their literacy skills as they're describing and using vocabulary and listening to what other students think about what they have made. This is an example of a tugboat; and notice that the child demonstrates that he has some understanding of steam in this tugboat. So, you can also get a sense of students' preconceptions about what they understand.

This is an example where the students were studying shoe repair, and they made a representation of this shoe rack. This is how they make the repair. They pull the shoe up on a – like a prop, just like a car. And again, these are examples of what we bring in for boxes and junk, so none of this is expensive. The benefits of boxes and junk besides just recycling, it allows the children great imagination and fluency, flexibility, and elaboration of ideas.

And again, as I explain the literacy, there's plenty of room for discussion, description, sharing, and listening. There's also opportunities for the social competencies to develop as children start to problem-solve and negotiate types of materials they're going to use. And if they're working on boxes and junk with other children, they begin to cooperate and compromise and they figure out what size they need of something and how to balance something. So, there's a lot of integration of mathematics. These are other examples of how boxes and junk is one choice that can help children work together. This is an example of the children making a lobster tank to represent the grocery store that they saw.

So, I'm going to start with the garden project and talk about the importance of representation as imagination and a creative product. So in this case, I was saying that in Illinois the ground is hard, and the children's question was about how we can dig into the hard ground. So, they brought an expert to bring a tiller to the garden. And they did observational drawings; and notice how they labeled different parts of what they saw. These are different examples. And notice the vocabulary that develops. Again, they're really thinking about the different parts of the tillers.

And when they start to think about making the tiller and representing it, look at the creativity that happens when they talk about the materials. So they're thinking about using wooden blocks or Legos or paper; and notice these are discussions that are drawing their ideas out from each and every child. And

so they go to the recycle center, and now they're putting together their thinking of what they remember from their experience, and they're also then pulling out materials that they're going to try. To be creative is to be an experimentalist.

And they're working together. We talked about the importance of the type of environment that establishes room for creative thinking, and that is one where collaboration and cooperation values each other's ideas. So, this is an example of them talking together and remembering that that's what the expert told them. And look at how they're sharing their ideas and looking at the picture of the tiller and talking back and forth; so they're really trying to problem-solve and figure out what they need.

And notice, again, that as they figure this out and use the materials, they're not only using their creative thinking but they're also calling back the vocabulary of the tiller: the blade, the sharpness, and here they know that it needs gas. So they're learning to elaborate on their ideas; and elaboration is a critical component of creativity. And they add the finished touches. Notice the collaboration and thinking creatively about what they could use: red paint, markers, red foil. And notice that they say, "You have to be careful not to cover the fan, or it will get too hot," and that's because they're remembering that the tiller has a fan. So they now have remembered how a tiller works. And notice that they wanted it to look just like the real thing. So again, I share this example of the creative problem-solving and the ways in which the boxes and junk activity can be used not only for free explorations of children but also for representation.

So in thinking about how inquiry can be used in addition to using it as a full project investigation, you can have many opportunities for children to collect data and think about how they can represent their data. Again, using creativity within a discipline. In this case, they were asking each other about hot and cold breakfasts and learning how to represent the data with a bar chart, or sometimes they represent it with unifix cubes. All of these opportunities for thinking are opportunities for children to be fluent with ideas and to explore different ways of presenting their ideas.

So in concluding this talk part – and hopefully we'll have time for questions – one of the big ideas is that environments influence us. So not only do we want the aesthetic environment rich in materials, but we also want to create the rich environments for the curiosity and the critical thinking. And the use of representation, choice, and inquiry are just three kinds of strategies that promote creativity in the classroom. They also produce environments that are rich in vocabulary and literacy. And the opportunity to engage in investigation and represent their ideas brings creativity to an intellectually meaningful experience for them, because it's their tiller; it's their work that they're showing and representing with creative ideas.

So, I'm curious now to know what you can take away from today. Again, I've focused predominantly on the physical environment and the emotional environment that allows children to develop and enhance their own creative thinking, to build curiosity about certain topics, and to take initiative through choices in their own learning.