Director’s Column: The “Why, What and How” of Bing
By Jennifer Winters, Director

Why we’re so passionate about what we do.
The period between ages 2 and 5 is critical in child development. It’s like no other time in life. It’s a time when personalities are being formed and attitudes toward learning are solidified. It’s a time when children are learning about how they feel about themselves and others, and when they are rapidly assimilating skills and knowledge about their world. It’s a time of great wonder, curiosity and living in the here and now. A positive educational experience in these early years can give children a passion, purpose and appetite for learning that will last a lifetime!

Every year, we welcome 450 children to our spacious indoor and outdoor classrooms as our honored guests, recognizing that they have an insatiable capacity to learn and discover through play. Children are respected for who they are and where they are developmentally—not who or where we expect them to be now or in the future. We see young children as competent and curious individuals, who have endless potential to create and explore the world around them. It is our role to offer them the gift of uninterrupted time and an environment that says, “Yes! Come create, explore and discover.” We believe in the unlimited potential of all children and cherish the opportunity to guide them on a path of lifetime learning.

What we do at Bing.
It is often said that “The environment is the third teacher” and at Bing Nursery School that is an understatement. The three nursery classrooms for 3- to 5-year-olds, which each includes a half-acre outdoor environment, were specifically designed for young children, from the variety and number of trees to the rolling hills designed to promote children’s cardiovascular health and freedom of movement. The classrooms are open to the outdoors and provide a seamless transition for children, bringing the outdoors in and the indoors out. Our founding director, Edith Dowley, PhD, insisted that the architect actually sit down with her, and together they used unit blocks as the medium to design both the indoor and outdoor space. For Dowley, it was essential that the children be able to view the outside when they were inside and the inside when they were outside. This is one reason the classrooms have large windows and doors that open to the outdoors.

Bing staff set up our classrooms specifically for mixed-age groupings of children 3 to 5 years of age by featuring a variety of open-ended materials: blocks, clay, paint, sand and water. These materials allow for many different levels of abilities. For example, a 3-year-old might stack blocks horizontally or vertically and a 5-year-old might build something more representational, for instance, the Golden Gate Bridge. This plan is optimal for children’s social and emotional growth, as they learn to be both leaders and followers: They learn to compromise and collaborate; to plan and negotiate; to work in a group or by themselves. It is much like a family grouping in that there is a wide range of competencies. Children’s critical skills of self-regulation, empathy and flexible and creative thinking are also well supported in the mixed-age grouping. Children’s cognitive skills are stretched as they communicate with peers of different ages. Our beautiful, naturalistic environment supports children’s growth in all developmental areas: cognitive, social, emotional and physical.

Bing also provides a valuable resource for Stanford’s researchers. Approximately

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motivation, Mark Lepper, PhD; language acquisition, Eve Clark, PhD; language development, Ellen Markman, PhD) and we know that by supporting these studies we are contributing greatly to the fields of psychology and linguistics and to our overall understanding of child development.

Additionally, we teach several courses for the Department of Psychology, including Observation of Children, Development of Early Childhood and the observation section for Introduction to Developmental Psychology as well as Practicum in Child Development (Human Biology). For these courses, students either observe or participate in our classrooms.

In 2009, Gioia and John Arrillaga and Helen and Peter Bing renovated the beautiful and historic Tower House adjacent to Bing Nursery School for our use. This generous gift provided a classroom for our undergraduate classes and a space to hold talks and lectures. In addition, the Tower House has enabled us to launch the Bing Institute to share our knowledge of child development with Bing parents and other educators.

This summer, Bing School offered a one-day symposium, Play: Vital for Development, for both parents and educators. During the academic year, the school invites educators to lectures in curricular areas such as math and literacy and to panel presentations on guiding young children. In the summer, our Bing Institute provides educators an in-depth examination (ranging from 3- to 5-day programs) into topics in child development. Basic materials, creativity, reflective practice and the importance of play are some of the topics the institute has focused on since its launch in 2010.

How Bing continues to inspire.
Bing is a community like no other, where children’s social and emotional growth is nurtured and guided by empathetic teachers. They understand the importance of collaboration, perspective-taking, being part of a group and making a friend. The skills children form in these early years will be with them for a lifetime. The guidance of a teacher who offers the young child warmth, acceptance and support in these early years is critical. Bing teachers meet children where they are—as capable and unique, each with their own rhythm and beat.

Bing inspires adults as well as children. Through the Bing Institute, the school has opened a rich dialogue among its own staff, parents and educators from across the country and around the world. And the Stanford undergraduates who take the classes offered at Bing often report that their experience at Bing has been life-changing, opening their eyes to the importance of quality early childhood programs and the impact that a sensitive teacher can have in the life of a child. Many of these students become pediatricians, teachers, public-policy shapers and lawyers, and most will someday have the important role of parent.

Bing is a magical place for children and it shares a prominent place in Stanford’s history as well as in the history of early childhood education. For 48 years, Bing has been dedicated to supporting young children’s early development in a play-based environment. Together with our teachers, parents, undergraduates and researchers, we truly are a community that is caring and committed to young children.
Talk to Your Children

By Stephanie V.W. Lucianovic, Author and Bing parent

In the middle of an early heat wave in May, interested listeners gathered near fans at Bing Nursery School to hear Stanford linguistics professor Eve Clark, PhD, deliver this year’s Bing Distinguished Lecture on the subject of language acquisition by children.

Clark, who has been doing research at Bing ever since she was an assistant professor at Stanford, has concentrated her recent research on how children acquire language when they interact with the adults around them. The most intriguing take-away from Clark’s lecture is not that the broad conclusion that the more parents and adults talk to children the better the children’s language skills, it’s Clark’s analysis of what adults are subtly doing in the course of those interactions and how that affects the ways in which children learn to speak and use language. Specifically, the ways in which adults correct their children’s speech.

Non-Verbal Communication

To begin at the beginning, Clark explained that starting at 9-10 months, children initially rely on gesture, gaze and stance to communicate. As an example, Clark talked about one of her colleagues responding to a baby in a highchair who was leaning forward, reaching out and making insistent non-verbal sounds. The colleague picked up several things on the table and showed them to the baby, who was leaning forward, reaching out and non-verbal sounds until the colleague retrieved a sponge. At that point, the baby sat back and was able to stop reaching and making his non-verbal sounds, satisfied that his desires had been understood and met. Eventually it dawns on children that this sort of communication can only get them so far, which is one reason, Clark pointed out, children take steps to go beyond that.

The Speech Stream

As early as 2 months, children are starting to work on the “speech stream.” Clark explained that as adults speaking our own language, we know where the words begin and end. She called these “the edges” of words and noted that when speaking a language other than our own, it is difficult for us to discern these edges and separate the unfamiliar language out into chunks. So, too, is it difficult for young children who are just learning language. Not only do they have to determine where the edges of the words are, but they have to assign meaning to them as well. By 9-10 months, children begin to recognize recurring chunks of language they hear in adult speech. This also is the time when adults are starting to actively talk to their babies, and by the time the children are between the ages of one and three, parents are working very hard to get their children to understand what is being said to them.

Clark explained that, when speaking to children, adults naturally articulate very clearly. This way of speaking, of course, can only be beneficial to children as they learn language. Moreover, Clark pointed out, research has also shown that adults make very few speech errors in these interactions. As a point of comparison, when we adults speak to one another, our language is riddled with speech errors. According to Clark, adults can automatically edit these speech errors out as we hear them, but all one has to do is transcribe an interview or conversation between adults to quickly discover just how frequent speech errors are.

Learning from Mistakes

Citing noted cognitive psychologist Jerome Bruner—“The only way language use can be learned is by using it communicatively”—Clark moved on to the fascinating subject of how adults correct verbal errors children make in the course of their interaction.

In the course of “establishing mutual understanding” between child and adult, Clark said that adults rely on two kinds of “reformulations” (feedback containing corrections) in order to verify meanings without unduly disrupting the flow of interaction. The first of these reformulations Clark discussed is called a “side sequence,” which adults use 70 percent of the time, and the other is an “embedded correction” which accounts for the other 30 percent. In order to help the audience understand how they use reformulations in their daily interactions with other adults, Clark gave examples:

Side Sequence Between Adults:

Person A: “Do you and your husband have a—car?”
Person B: “Okay, let me see if I can find one that.”
Person A: “Have a car?”
Person B: “No.”

According to Clark’s explanation, the side sequence reformulation happens within the exterior of the original question. Person A almost asks if Person B had a “jeep” but stops and corrects himself midsentence, after which Person B checks to make sure she understood Person A correctly before answering the original question.

Embedded Correction Between Adults:

Person A: “The wales are wider apart than that.”
Person B: “Okay, let me see if I can find one with wider threads. How’s this?”
Person A: “Nope, the threads are even wider than that.”

The initial word, which is represented in bold, is judged to be wrong and is corrected by Person B—the expert in the subject being discussed—without pointing it out. The correct word is then tacitly accepted and adopted by Person A.

Clark then invited us to compare those two forms of adult-adult reformulations with that which happens between an adult and a child:

Acknowledgement

Bing Nursery School would like to thank Stephanie V.W. Lucianovic for contributing an article on this year’s Bing Distinguished Lecture. Lucianovic’s child Henry attends Bing School currently. Lucianovic is the author of Suffering Succotash: A Picky Eater’s Quest to Understand Why We Hate the Foods We Hate and writes for New York Times Motherlode and CNN.com among other publications and is an editor for Little Passports.

BING DISTINGUISHED LECTURE
Side Sequence Between Child and Adult:
Child: “Milk, milk.”
Adult: “You want milk?”
Child: “Uh-huh.”
Adult: “Okay, just a second and I’ll get you some.”

The father adds an interpretation (represented in bold) for the child’s repetition of one word. Clark explained that when side sequence reformulation occurs between a child and an adult, the child offers incorrect or incomplete information, the adult supplies the needed information, the child then either accepts or rejects this supplied information, and the adult moves on from there.

Embedded Correction Between Child and Adult:
Child: “Don’t fall me downstairs!”
Adult: “Oh, I wouldn’t drop you downstairs.”
Child: “Don’t drop me downstairs.”

Just like in the adult-adult embedded correction reformulation, the child recognizes the adult’s expertise in language and therefore accepts and adopts the adult’s proffered word as the correct word.

Clark went on to give additional examples of how child-adult interaction helps the child acquire language—offering a word for an item when a child requests it by pointing, offering information about an item beyond just the name of that object, etc.—as well as the ages when these exchanges can be expected to occur. However, the larger point from Clark’s lecture was that the amount of interaction children engage in before they turn 3 years old plays a critical role in their lifelong language acquisition. Research has shown that the more verbal interaction children have, the larger their vocabulary, the faster they process familiar words and the more readily they learn new words.

However, in order to give nervous parents an idea of what to expect, Clark underscored that learning to understand and use a language takes time. According to Clark, even when children are 4 to 6 years old, they are still learning how to do things like tell a story, negotiate, give instructions, make puns and tell jokes. “These are some of the things that even some adults never learn how to do,” Clark added, grinning.

Now while the critical role adult interaction plays in a child’s language acquisition might seem like an overwhelming responsibility for parents, the good news is that, according to Clark, children naturally seek out that engagement without too much encouragement. They actually want to talk to us, so go on: Talk to your children. With apologies to author and journalist Michael Pollan who once said, “Eat food. Not too much. Mostly plants,” go on and talk to your children. Not too loud. Mostly words.

Researcher in Profile: Taylor Holubar on Children’s Understanding of Facts and Opinions
By Chia-wa Yeh, Head Teacher and Research Coordinator

In the course of his research, Taylor Holubar has played games with hundreds of children at Bing Nursery School. From these games, which were also research studies, the Stanford graduate student in developmental psychology is exploring how children learn from and about other people, a topic that has long interested him.

Having grown up in the Bay Area, Holubar wanted to experience living on the East Coast. He attended Swarthmore College, outside of Philadelphia, where he was in the honors program, majoring in psychology and minoring in political science. Now in his fifth year of graduate school at Stanford, he continues a family tradition of study at the university. Family members who attended Stanford include his paternal grandparents, an uncle and his parents (both received a master’s in education).

Over the past two years, Holubar and his advisor, Ellen Markman, PhD, professor in psychology, have studied how children and adults respond to opinions they don’t share and whether the way those opinions are expressed changes their responses.

Their work applies the idea of “naïve realism,” which was developed by Stanford psychology professor Lee Ross, PhD, and his colleagues. It’s the belief that “I see the world as it really is and others will agree with me to the extent that they’re informed and sincere.” Disparities in perceptions can result in conflicts, large and small, on personal and societal levels.

The researchers are interested in how young children understand facts and opinions. In particular, they wondered if the way adults express opinions influences preschoolers’ reasoning. For example, opinion statements frequently look factual—“Chocolate is delicious” or “That’s the best movie of the year.” So when adults talk about preferences as if they were facts, does it make it harder for preschoolers to recognize the subjectivity of opinions?

To gather their data, Holubar engaged children in discussions of something that children are very familiar with and for which they have their own preferences: food. He and his research assistants presented 3- to 5-year-olds with pictures of children and introduced these characters as “friends who go to another preschool.” Each character was asked either a fact question or an opinion question about a different food. Half of the characters responded with a conventional response (e.g., “I like ice cream”) or a true response (e.g., “Milk is white”). The other half responded with an unconventional response (e.g., “I don’t like ice cream”) or false response (e.g., “Milk is green”). Some responses were expressed using “like” (“I like ice cream”) while some were presented as facts (“Ice cream is delicious”). Then the researchers asked the children why the character might
have said that, and whether the character made a mistake or was just being silly. These questions allowed the researchers to see whether children believed only one response to a question could be correct, or whether multiple points of view are acceptable.

The results show that 3- to 5-year-olds virtually always say an unconventional opinion like “Ice cream is yucky” is mistaken, and adults often do too. Interestingly, older preschoolers and adults are more accepting of opinions if they’re “marked” as opinions using language like “I don’t like ice cream” instead of sounding factual. Younger preschoolers, though, aren’t affected by how the opinion is expressed.

Holubar and Markman thought this might have to do with the fact that the opinion “I don’t like ice cream” sounds like a generic statement, true of ice cream in general, across time and situations. So they tried a second way of “marking” opinions, by saying that a character did or didn’t want conventionally attractive foods like ice cream. Much to their surprise, they found that this was no more helpful than the “I don’t like” language: Again, older preschoolers accepted the unconventional opinion about half the time, and younger preschoolers rejected the unconventional opinion almost all the time.

Often, the children’s explanations for others’ unconventional opinions are very reasonable even when they also say those opinions are mistaken. For example, one child explained that a character didn’t like ice cream “because it has too much sugar.” Another frequent response was that the character hadn’t tasted ice cream before and so presumably didn’t know how delicious it is. One child reasoned that a character said “Milk is green” (a false statement) because “Algae is green, and milk is a liquid, and maybe there’s algae water in the milk he drank.”

It’s a bit surprising to the researchers that children who came up with explanations like these are nearly unanimous in saying unconventional opinions are mistakes or silly. The researchers wondered to what extent their findings are driven by the specific questions they asked—for example, maybe these children don’t really understand what they mean by a “mistake.” This is a possibility, but when they ask adults these questions, it turns out adults are also more likely to call unconventional opinions “mistakes.” Presumably adults know what “mistake” means, so the phenomenon isn’t just due to preschoolers’ (mis) understanding of the questions.

Holubar and Markman are following up this work with a modification of a classic study. In this work, children are asked to predict how characters will behave or feel after they find a desired or an undesired food. The researchers hope that this approach will offer a new perspective into preschoolers’ understanding of opinions. In this game, some characters have conventional food preferences (e.g., cookies) and others unconventional (e.g., lemons). These characters then go in the kitchen, represented by a photo as well, to look for some food for a snack. Some find their preferred food while others find something different. Researchers then ask the children how the characters felt when they found the food and whether the characters would keep on looking. The results will give the researchers a glimpse into children’s ability to take others’ perspectives when they differ from their own. The researchers are still collecting data for this project.

Part of the researchers’ argument is that the tendency to treat opinions as if they were facts (i.e., as true or false, with an objectively correct answer) is a basic part of human cognition. “I suspect that part of children’s developmental task with regard to reasoning about opinions is gaining practice with recognizing that people think, feel, act and live in different ways. Inhibiting the impulse to assume one’s own way is the right way is hard for all of us!” said Holubar. He believes unconventional opinions are an opportunity for parents and teachers to highlight how different people see and interact with the world differently. For example, acknowledging that children may like the same or different fruits at snack time can broaden children’s perspectives. Comparing and contrasting what different people like or don’t like—and validating those differences—Holubar suggested, supports children’s development as empathetic, understanding individuals.
“Facilitating creative development is a sophisticated process that must find a balance between learning skills and stimulating the imagination to explore new ideas.” — Ken Robinson, Out of Our Minds: Learning to be Creative, 2001

The Bing Institute’s summer 2013 sessions focused on the value of creative thinking for young learners and its importance in the early childhood field. Guided by Beverley Hartman, head teacher and director of the Bing Institute, and Sarah Wright, head teacher, participants examined creative thinking through hands-on explorations, discussions, video analyses and presentations by Bing teachers. Twenty-five attendees, from the United States and abroad, took part in each of the two three-day intensive workshops, which took place in mid-July.

The following is an overview of the program that was offered for both three-day sessions.

The program began with a hands-on experience designed to launch the creative process and help the group bond. In this first session, led by head teacher Adrienne Lomangino, the attendees discussed how best to define creative thinking. This was the resulting definition: “Imaginative activity fashioned so as to produce outcomes that are both original and of value” (from All Our Futures: Creativity, Culture and Education, published in 1999 by the National Advisory Committee on Creative and Cultural Education). This definition appealed to the group because it could be applied to young children, as well as adults. Determining what constitutes true creative thinking for a young child helped the group to acknowledge that creative thinking is a complex undertaking that reaches beyond the arts and into other disciplines.

Window on a Young Child’s Creative Thinking:

A 4-year-old girl joins her brother at a table where he has been connecting together pieces of a set of construction materials—flat, plastic, organic shapes with slits on the edges. She joins him, slipping pieces together along the slit to form an extended structure. Both children continue adding to their structures until the pieces are all used. The girl turns to a teacher to complain, “He has more than me!” The teacher responds, “Yes, he’d been building with them for a while before you came.” The child lowers her gaze to her construction. She pauses, frowning slightly, and scans the area. She then swiftly glides to nearby shelves, picks up a basket of small plastic animal figures and returns to the table. Settling back into her chair, she picks up an animal out of the basket. After holding it up to examine for a moment, she hangs the animal on her construction. She continues to hang numerous animals on the structure. When an animal falls from its placement, she seeks out a more stable position for it. Her brother watches her for a minute then adds animals to his own structure.

The session’s leaders asked attendees to analyze examples of creative thinking including the behavior of the girl in the scene described above. The group members asked themselves if the above scenario in which the girl uses animal figures to solve her problem was likely to occur in most early childhood classrooms. They concluded that teachers might set the stage for creativity yet creative thinking is beyond some children’s reach. The group discussed the girl’s scenario in terms of her needs and her solution as it related to the guiding definition of creative thinking: Was the child’s work original and of value? The group deemed the girl’s solution as original and of value for her. The child had the novel idea to combine materials that enabled her to pursue her goal to continue building. This novel approach had additional value because it impacted her brother’s choice to start using animals on his structure. The group acknowledged that they cannot know from one anecdote if the girl has developed her creative thinking ability to the level that she asserts it in other experiences. She might have had a single creative effort in this scenario or perhaps this is her first step toward solving challenges using creative thinking in her future play. This kind of group reflective practice on a child’s documented learning story is an important collaborative process for educators as it allows us to ask questions, consider ideas and make sense of children’s learning from diverse perspectives.

The first day’s study session included a TEDx video of a talk by Tina Seelig, PhD, executive director of Stanford Technology Ventures Program. The talk, A Crash Course in Creativity, addressed internal and external influences on creativity. The keys for creativity, according to Seelig, are the internal influences of imagination, knowledge and attitude, and the external factors of habitat, resources and culture. The group used Seelig’s work to generate overarching questions regarding creative thinking: Does creativity have value to us? What is the potential for children’s learning? Is nurturing creative thinking your goal? These questions led to an even bigger discussion: What if creative thinking weren’t to exist at all?

The second day brought one of the most interesting topics for the participants—the school environment. The institute initially looked at how schools convey culture through the overall design of their buildings and play space. Educators began by considering their school culture and the implications for promoting a creative climate. To help teachers lay the foundation for creative thinking with 2-year-old children, head teacher Kitti Pecka guided the educators through the concepts associated with heuristic
education which encourages a person to solve problems on his or her own by experimenting or by trial and error. Pecka helped the participants examine how the heuristic approach can lead to self-directed creativity. She further detailed methods to encourage and support activity in the visual, tactile and auditory realms.

Later in the day, the whole group, facilitated by head teacher Parul Chandra and teacher Nandini Bhattacharjya, examined the nature of learning environments. The participants investigated space, equipment, materials, schedules, time and curriculum design. The attendees talked about their own teaching spaces and some of them provided images. As a whole group, they studied the attendees’ photos for areas that worked well and for areas that could be developed further. For example, an urban school in Asia had a rooftop playground! The attendees brainstormed how the space could be adjusted or materials could be brought in to promote creative thinking. Other participants presented problems with their play spaces, ranging from restricted access to difficulty obtaining quality materials to limited indoor natural light or underdeveloped outdoor spaces. The case studies for the participants were one of the session’s highlights, as the process was interactive and personal. The attendees could inspire their school colleagues with the ideas generated during the discussion. Two goals the teachers settled on regarding culture and learning spaces were offering children a naturalistic environment as well as offering a program built on trust, relationships and play.

In the afternoon attention turned from the environment to the teacher. Head teacher Peckie Peters guided participants in integrating open-ended language with children, such as asking clarifying questions and reframing ideas. Teachers supporting children’s play might use language such as “I notice …” or “I wonder …” or “I am curious about ….” This type of communication eliminates “yes” or “no” responses and as a result encourages children to consider what they think and to explain it to peers and adults. This type of dialogue with children connects seamlessly with the opening quote by Ken Robinson about stimulating new ideas.

The group also examined the significance of the teacher’s role and how it might impact children’s creative thinking. The participants examined topics such as children having valuable ideas, children as competent thinkers and perspectives on failures as opportunities for learning. These discussions led teachers to look at their own teaching style to consider openness, flexibility or ability to take risk. The attendees were asked to identify examples of creative thinking by children. They also talked about key moments for children that happen each day when teachers have a less active role: Children can engage with peers to build on their own play, testing out creativity and creative thinking in their own time.

On the last day, head teacher Nancy Howe crafted a culminating experience for participants that promoted creative thinking. Howe shared inspiring slides of the art of Nina Katchadourian, who recreated famous Flemish paintings using only her cell phone and items she had around her during an international flight. The art helped catalyze educators to make their own inspiration boards to reflect on and promote creative thinking in their schools. To consolidate the experience, the group also viewed a TEDx video, Creative Confidence, by Stanford professor and IDEO co-founder David Kelley.

Finally, the participants had the opportunity to reflect in small groups on their overall experience at the institute. The educators then devised an action plan identifying short- and long-term goals for incorporating creative thinking in their own setting.

Beverley Hartman and Sarah Wright contributed to the reporting of this piece.
“Look! I made a snake!” A child exclaimed as he began to roll another piece of clay in the Twos classroom. “I made a daddy snake! I made a daddy snake and a baby snake!” He held up his rolled-up clay to show the teacher.

Clay is one of the five basic, open-ended materials (the others being blocks, paint, sand and water) that are always available in the classroom at Bing. In the beginning of the school year in the Twos, children stopped by the clay table for a short time—some children touching it and saying “eww” while others curiously pushed and poked the material that provides sensory input. Comments such as “It’s cold” and “It’s squishy” came up. Later a child discovered that squeezing the clay could make a squelching sound. This brought laughter to the table and encouraged others to try it. Children pounded the clay and realized they could make it flat with their fist. They could break it off into small pieces or use a large piece and pinch, pull, poke or pat it. Others stood up to use their whole bodies as they pounded the clay with both hands. While the children continued to investigate clay, they used senses of sight, hearing and touch.

Further benefits of manipulating clay include the increased development of large and small muscle groups, thus enhancing dexterity. The activity fosters eye-hand coordination and helps build a child’s attention span. Children’s hands-on experimentation with the material allows them to grasp the material’s properties. Additionally, clay invites children to expand the use of their receptive and expressive language skills through listening and responding to open-ended questions.

As the children began to discover the limitless possibilities of this open-ended material, they began to stay at the clay table longer. Children expanded their use of the material from exploration, to experimentation, to imaginative play. The clay table is adjacent to a play kitchen, so it was no surprise that the theme of food and cooking commonly arose in their play. They made pizzas, pastas, soups and muffins of clay and placed them in the oven to cook. Taking the cooked meals out, with a pot-holder, of course, the children shared their delicacies with their peers and teachers. Peer relationships began to form as they cooked and dined together.

As cooking with clay became a daily activity, children asked for knives. Teachers had preferred to begin this new experience with the children utilizing the best tool of all—their hands! But as their work became more involved, adding a few tools was the next step. In addition, children who may have been hesitant to try the material with their hands initially began to explore with the tools. The children discovered they could cut the clay into multiple sizes and shapes. They could keep the pieces separate, stack them, lay them side by side or join them together into something completely new.

Each day, the ways the children interacted with clay transformed. Teachers introduced a few more tools, and the children found, to their surprise, that tools could stand straight up out of the clay without any support from hands. Soon many tools were standing upright stuck into the clay. The children used the tools to make marks and indentations in the clay, creating various textures. They also told stories as they worked with the clay. In one story, for example, daddy snakes and baby snakes were playing together while pizza was being served to all the children at the table. “Would you like a piece?” a child offered.

Teachers explained to the children how to roll the clay long into coils or into balls. Children practiced this on the table or between the palms of both hands. They explored various techniques and soon the long rolled pieces became snakes covering the table. Next, they formed balls as teachers demonstrated an alternate technique for rolling the clay.

Shaping clay and building three-dimensional objects empowered the children. The material’s soft and responsive nature fascinated them and motivated them to see what else they could do with it. It is a rich material that gives sensory input, can constantly change, and can turn an autonomous experience into a social one. As the children continue to explore the medium, we look forward to the new ideas and discoveries they will experience with this versatile material.

Bonus feature: Video available online: http://stanford.io/1lc51xT

A child pinches the clay while turning it to form a small bowl.
Children are naturally creative. However, in order to flourish, creativity must be nourished. Creative thinking is a constant in the mind of the child (and in the childlike mind), however for the very young child environmental obstacles and physical limitations are also constant. How do we remove obstacles for the eager artist?

At Bing, we help children create their own learning paths. Our classrooms become laboratories for exploration and environments that encourage creative thinking.

In our class of 2-year-olds, we set the stage for learning by creating opportunities for free exploration. One way we do this is by considering the senses. We are sensitive to children’s visual, tactile and auditory input and work at offering specific stimulation that encourages experiences rich in different sensory input. The ease of access and simplicity of available classroom materials eliminate obstacles and offer an invitation to play for a very young child. Teachers observe and are available to facilitate, use welcoming language and gestures and make the materials accessible.

Small children respond very positively to the opportunity to interact with the environment rather than merely to observe. Our classroom reflects this by making every material immediately available. The play-based programs at Bing strongly foster children’s active discovery as they use the many open-ended materials in the classroom under the thoughtful guidance of skilled teachers. We find that the youngest children flourish by using open-ended art materials in a comfortable setting.

The experience of one of our youngest children, Tommy, shows how this approach can succeed. He was immediately drawn to the art table and spent long periods of time for all projects. He painted, fingerpainted, drew, glued two- and three-dimensional objects, all the while thoughtfully focusing on the piece at hand. He repeated the encouraging or descriptive words of the teacher, such as the color of the paint. He was aware and respectful of those around him but remained focused on his own work. His active participation in art was building his comfort level and confidence. It also produced a huge portfolio of art that progressed from the simplest of products to complex creations, each building on the one that came before. Teachers observed and commented about the properties of each one and tracked progress in order to provide materials and projects that furthered his executions. Gradually, he made spontaneous comments about his work, and the following month began naming his work and declaring his intentions for the process at hand. He became independent in making choices and moved throughout the classroom. He is now an active player creating in all curriculum areas both inside and outside.

Freedom of choice in activities allows children the ability to experience their own path. Some are attracted by a specific material briefly once each session, repeating a pattern again and again. This “dabbling” behavior allowed a child like Sasha to move at the speed she needed, gain feedback at the end of the day from teacher and parent to reinforce the value of her work, and construct a body of projects on which to build. She was visually motivated and drawn to explore art media. She became more focused during activities, staying with these art projects longer each time. As a result, she was able to spend more time on her creations and looked for them at the end of the day, showing them to her parents with pride.

An easel offers easy access for painting, and teachers can support each child’s individual needs by offering more colors, more brush sizes and comments, which contributes narrative to the work. Twins Zachary and Annika encouraged each other to paint, each observing the other’s work and developing more modes of painting, for example, using stabbing movements, long lines of paint and circular brushwork. They often worked at opposite sides of the same easel, keeping each other in sight and offering paint cups to each other. As other children asked to share and paint with them, their enjoyment of these interactions led the twins to individuate in many areas of the classroom. They played separately with other children, “cooking” pretend food using play dough and feeding a whole family of babies. Their togetherness as twins remained, but they also included others in their play and work.

Emma enjoyed playing at the play-dough table gathering large balls of dough and making a mound. Later she named the mound “cake.” This word inspired teachers to add craft sticks for use with this three-dimensional material to replicate a birthday cake with candles. This addition brought creative cake-making not only to Emma but also many of her peers. Soon she not only made cakes, but also enjoyed the many imaginary culinary treats made by her friends at the outside kitchen area in the play yard. She enjoyed much more interactive creative play and worked toward more elaborate creations each time. She has also become closer to other teachers and children and allowed them to participate in her dramatic/pretend play, using an expanded vocabulary to offer and procure materials. She repeated and built on scenarios with teachers and her friends.

This concept of building on each experience applies to the auditory domain as well. We incorporated children’s names into traditional songs for music time, thus...
drawing attention to each child. Children learn melodies through repetition and the use of their names in the song piques their interest. For example in *Bumping Up and Down in My Little Red Wagon*, the second verse says “One wheel’s off and the axle’s broken.” Teacher Betsy Koning used illustrations of tools and a child’s picture to illustrate “Kash’s gonna fix it with his hammer.” In another example, children can be the goal of *The Bear Went Over the Mountain* by singing “And all that he could see were Rayden and Ignacio,” placing their pictures on the other side of the mountain as visual cues. Many children were included in *I’ve Been Working on the Railroad* when they are the one to blow the horn toward the end of the song. Children began to invent additions—such as Bina, who in *Patty Cake* came up with “we put it in the oven for Bina and me.” The possibilities of substituting names in songs are endless, and children love repeating songs and creating new lyrics and movements each time. Thus the music experience in a group becomes dynamic in their hands and in those of a creative teacher.

### Pretzel Recipe

**Ingredients:**
- 1½ cups warm water
- 1 envelope yeast
- 4 cups flour
- 1 tsp. salt
- 1 tbsp. sugar

1. Mix together water, yeast, and sugar.
2. Set aside for 5 minutes.
3. Put salt and flour in a bowl.
4. Add yeast mixture and mix to form a dough.
5. Shape dough into creative twists.
6. Bake at 425 degrees for 12 minutes.

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**For several weeks, on cold winter mornings the Twos classroom was filled with the comforting and familiar smells of freshly baked bread, pretzels, pizza and apple cake. Children practiced stirring, rolling, kneading and other baking skills.**

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**Photos not available online.**

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**Cooking in the Classroom: A Winter Baking Project with the Twos**

By Nancy Howe, Head Teacher

“Pat a cake, pat a cake baker’s man
Bake me a cake as fast as you can
Pat it and poke it and mark it with a B
And put it in the oven for baby and me.”
—Classic English nursery rhyme

This winter, children in our classroom became bakers—not just for pretend, but for real. Our winter quarter baking project in the Tuesday/Thursday AM Twos program, *Cooking in the Classroom*, was a way for teachers to respond to and expand upon the children’s interest in pretend cooking, an early stage of imaginary play.

Outdoors in the sand area, it’s typical for children to use open-ended materials like sand and water to symbolically represent familiar ingredients and make foods that they like eating at home: soup, muffins, cupcakes and birthday cakes. Inside, children especially enjoy the sensorial properties and imaginary play possibilities of play dough. Teachers offer cooking tools in conjunction with play dough including rolling pins, plastic pizza cutters, tortilla presses, cookie cutters and small baking pans.

For our baking project, teachers selected simple basic recipes that allowed children to be actively engaged. Baking with real ingredients gave children the opportunity to not only practice stirring, rolling, kneading and other baking skills but to talk about ingredients, observe scientific processes like yeast foaming and to use their five senses to engage in all aspects of the baking process. Parents and grandparents participated as volunteer chefs. The enthusiastic involvement of teachers, children and family contributed to shared-classroom cooking experiences.
Building a Thicket in West Room
By I-Han Liang, Teacher

It began with some stakes and string in a patch of dirt. The children in West Room wandered by the patch in our play yard marked “reserved” by the stakes and string, curious to see what would be built there, an area we call the Back 40. Before long, they saw a circular wooden platform and a sign that read, “Please do not step here! It is very slippery!” Smiles of surprise and wonder appeared as children picked up these clues. What was to follow was like magic for the children, who had the rare opportunity to witness the creation of a work of art in their own back yard.

Kelly English, an artist and native of Minneapolis, Minn., builds what she calls “thickets” out of willow branches that grow in the marshes of her hometown. After harvesting the long branches, she keeps them moist and pliable in her large studio, where you can often find her busy at work. Armed with gardening gloves, safety goggles and knee pads, English begins the wondrous process of weaving the willow branches into a house-like structure. We were fortunate to have English at Bing this past autumn quarter to show us how she brings her artistic vision to life.

When English started her work in West Room, she brought along her branches and tools, the most important of which were her skillful hands. After securing the wooden floor of the thicket to the ground, English was ready to begin the weaving. She staked long branches into the ground to create the frame around which she would weave. At first, the children sat on boards set out for observation about 8 feet from her work space—but the space between the children and the creation closed considerably as the weaving carried on.

“What are those?” “What are you doing?” “Can we keep it when you’re done?” These were some of the first questions the children asked while English bent and wove the branches together. As they watched her work, they moved closer and asked more about the process. “How do you bend the stick?” “Where did you get all of these sticks?” “Why are you spraying the branches with water?” The children learned that the sticks need to be moist in order to bend and not break. They also learned that the branches came from Minnesota and that they were still green on the inside despite their dark brown color on the outside. The green indicated that the branches were still alive, allowing English to bend them into graceful curves and arcs.

As the weaving continued, the thicket’s structure grew more apparent. It was to have a door and a window, and children helped English determine their locations. With English’s help, some children even had the opportunity to weave branches into the thicket. Wearing safety goggles from our woodworking shed and gardening gloves from English’s tool box, they learned how to feel the bend of the branch as they searched for spaces into which it could be woven. If a branch broke upon bending, you could hear someone say, “Oh, that branch didn’t want to bend. It wanted to break.” Over the classroom fence, children could see pre-made thickets in Center Room and East Room waiting to be placed. The excitement of what was to come was mounting all around the school.

After two solid weeks of weaving, watching and wondering, West Room’s thicket was finally complete. A door faces the playhouses across the way and a window overlooks the garden boxes and redwood trees. Inside the thicket, an ethereal light filters through the towering willow branches that form the tip of the structure, creating a space that is at once cozy and expansive. It stands in our yard, inviting children to come play. We will treasure it for its many future possibilities and also for the memories it has given us.
More Friend than Fowl
By Adrienne Lomangino, Head Teacher


When developmental psychologists espouse the value of companion animals for young children, thoughts of fur and paws probably come to mind more than feathers and claws. However, a trio of Silkie Bantam chickens has fulfilled the role of companion pets in East Room more than anyone imagined. The first few days of the school year in East PM involved not only getting to know new children, but also meeting some small, feathered friends. A half dozen Silkie Bantam chicks joined the classroom for the Autumn quarter, with three of them staying as classroom pets. The children have participated fully in socializing the chicks, initiating them to the life of a nursery school chicken.

Why Silkie Bantams? Buffy Welborn, a parent in East PM and experienced chicken owner, suggested this breed of chicken because of its docile temperament. In addition, these chickens have fine, fluffy, hair-like plumage topped off with a pompom-like head, giving them an amusing, cuddly appearance. After reading comments online such as “Silkie chickens are exactly as they look — funny, cuddly and very kind. They are one of the friendliest chicken breeds and will appreciate attention and company,” the teaching team decided to try them as classroom pets (http://www.raising-happy-chickens.com/silkie-chickens.html). Buffy hatched the chicks for the class and provides ongoing guidance about their care. The chickens have proved to be as docile a breed as we had hoped, and have highlighted how beneficial interactions with animals can be for young children.

As educational researcher Mary Jalongo, PhD, wrote in her article Salamanders to Shetland Ponies, connections with animals “are capable of exerting a powerful, positive force in children’s lives.” While interacting with the chickens, the children have developed their emotional, social, physical and cognitive competencies.

Separation and Empathy
Interest in the chickens helped some children with the emotional experience of separation. When children first move away from their caregivers, some are uncertain of what to do first. If a chicken was nearby, children often shifted their focus from caregiver to feathery pet. Letting go of their caregivers, they looked and reached toward the chicks. Children also had many opportunities to consider how their actions affect the chicks. How do they feel about being put in high places? In enclosed spaces? Having their tails pulled? Such consideration of others’ feelings builds children’s empathy. Questions such as, “Why is she making that sound?” reveal children’s efforts to make sense of the chicken’s actions and reactions. This process requires children to practice taking the perspective of others.

Sensory Processing and Emotional Growth
One way children learn about the world is through the use of their hands. Holding the chickens provides satisfying tactile stimulation. Such sensory experiences are important for developing children’s sensory processing as well as their emotional growth. “Through cuddling, stroking, and touching pets, children nurture their sense of love and affection,” wrote professor of teacher education Jyotsna Pattnaik, PhD, in the 2004 article On Behalf of Their Animal Friends: Involving Children in Animal Advocacy published in Childhood Education.

The Silkies have soft, fluffy feathers that the children enjoy touching. As one child commented, “I like their fluffy hair.” Another said, “I like touching them and carrying them.” A few children not only petted or picked up the chickens, but also casually carried them around the yard, either embracing them or holding them under one arm.

Confidence, Control and Companionship
For some children, the chicks provided an opportunity to gain confidence. Over the course of a few sessions, children who showed initial hesitancy about the chicks grew more comfortable handling them. Their faces, tilted to examine the chicks more closely, showed their curiosity.

The chickens also provided children an opportunity to gain a sense of agency and control. Young children are often shuttled from one place to another. They may have some choice of their destination, but are often taken where an adult wants them to go. The chickens gave them a chance to play that role in someone else’s life.
The children set the chickens in carts and pushed or pulled them from place to place. 

For some children, the chickens provided comforting companionship. They would find small spaces to share with a chicken: a crate, an enclosure made of blocks and the willow hut in the yard. Children would sit a chicken on a table where they were writing, drawing or building. Sometimes the chicken sat among a group of children using materials at a table, and other times paired with a solitary child. During such moments of solitary play, the children were relaxed and focused. They paused their activity occasionally to pet the hen or pick her up if she started to wander away. The chickens provided a non-judgmental presence. At such times their presence fostered a feeling of emotional security and calm (Pattnaik, 2004).

Social Connections and Pretend Play 
Mutual interest in the chickens has brought children together and led them to form social connections as they try to catch the birds, sit together with them or plan where to bring them in the yard. As participants in pretend play, the chickens enabled children to try out the role of parental limit-setting in ways that peers would not. In one extended play scenario, the chicken “children” were “grounded” and subsequently directed to take a potty break. While a peer would not have enjoyed being the child in this play, the chickens had no complaints. They calmly allow the children to carry them, read to them and even practice their “doctoring” skills. Such play resonates with the assertion made by child development scholar Gail Melson, PhD, that “Animals may function as a meaning system through which children make sense of themselves and their surrounding environment.”

Focus and Motor Skills 
Picking up the chickens requires patience, persistence and observation, but also motor planning, agility, strength and control, which are important aspects of physical development. To catch a chicken, children need to approach slowly, then move decisively. They have learned to hold the chicks gently, yet with a firm enough grasp to make the birds feel secure. One child repeatedly got his hands on a hen, but did not have a firm enough grasp to hold her. Each time, he paused for a moment, watching where the hen scuttled to, and then approached her again. After many, many attempts, he grasped her more firmly and stood up from his stooped position, eyes wide in surprise. The children also have to exercise control of their behavior while holding the chickens. They need to walk—even if they want to run—and step down carefully rather than jump.

Cognitive and Math Skills 
Besides supporting children’s role-playing, the chickens have prompted thinking in other ways as well. They prompt curiosity, observation and storytelling. While watching the chicks, children made observations about their characteristics and behaviors: “I like it when they walk around and flap their wings,” “They have claws,” and “It’s going to jump down.” They also generated questions such as, “Why do they have hard parts?” “Why are they flapping their wings?” “Do they have eyes?” and “Can they get down from here?”

Two children explored relative size in examining the chicks:

C: This is the smallest. 
M: No, this is the smallest. … They’re both the smallest. That’s why they’re twins.

As a recent extension of their use of the outdoor building blocks, children created a maze for the chickens. This project involved thinking about spatial organization and relationships.

As the chicks matured over several months it became apparent that some were hens and others roosters. Hens make better pets, so three of these were selected to stay—and once selected they needed names. The children proposed names and then voted by attaching a paper square by their favorite name for each chicken. This process provided many opportunities for counting, examining quantities and talking about math concepts such as more and less. After the votes were counted, the chickens were given the following names: Snowflake, Dinosaur and Mini Cooper.

Whether accompanying a child while drawing, building or enacting pretend play, the chickens require no explanations or negotiations. They’re companions that allow the children to be themselves. They are fun to watch, fluffy to touch and readily transportable. For many of the children in the class, their memories of Bing will include spending time with the chickens. We are very grateful to Buffy for making this wonderful experience possible.
Why Sand Play is Essential to Young Children

By Peckie Peters, Head Teacher

In the sand area, one end of a white plastic rain gutter leans on a boulder, the bottom end touching the sand below. Next to the gutter are three large shovels and a square hollow block. Nearby is a large galvanized tub of water with two red buckets floating on the surface. Could this seemingly random set-up be an invitation for a young child to play? The answer is, “Yes!”

Samuel arrives first and notices the items. He pauses for a moment then picks up the block and places it under the end of the gutter, which was previously in the sand. He fills one of the red buckets halfway and pours it into the gutter watching the water flow off the edge of the gutter. He smiles at the teacher and announces, “A waterfall!” before moving to get a second gutter to add to the arrangement. Luke joins him and asks, “What are you making, Samuel?” Samuel is focused on his task and appears not to hear. The teacher inserts: “Samuel, Luke is wondering what you are making. I wonder if he wants to help?” Luke smiles and Samuel answers: “It’s a waterfall. I’m adding this gutter.” “Can I help?” asks Luke. “Sure,” responds Samuel, who places the second gutter next to the first, carefully lifting the first one so he can place the second underneath it. He looks to see if Luke has noticed and adds: “If you don’t put it underneath, the water just runs out.” Luke nods in agreement.

Are these children just playing in the sand, or are they gaining physical, cognitive and social skills that are critical for their development? Many teachers of young children believe that both are true and that sand play, like play with other basic, open-ended materials such as the blocks, clay, paint and water offered at Bing, gives children a foundation for learning. Alison Gopnik, renowned researcher and psychology professor at University of California, Berkeley, has spent over 20 years studying children’s learning and development. She contends that “exploration and play during preschool turns us into adults who are flexible and sophisticated thinkers.” What are these skills exactly and how does play in the sand area support their growth? A look in the sand area in West AM helps answer these questions.

Eliana sits in the sand with a shovel and a small silver bowl in front of her. She picks up a handful of sand and lets it flow through her fingers into the bowl. “It’s cold!” she announces and picks up another handful. She plays like this on her own for 10 minutes, periodically noticing the level of sand in her bowl.

Through this sensory play, Eliana is learning about the properties of sand, how it feels and how it flows freely into the container. At the same time, this play is sending signals to her brain that strengthen neural pathways, which lay the foundation for learning other skills such as using fine-motor muscles or identifying items by touch. Understanding the attributes of this material at a sensory level is a step in the process of classification and differentiation—proficiencies that will be needed in future scientific exploration.

Another day Deion and Jayden are working in the sand area. Their play is mostly parallel, without much interaction, but they often overlap in moments where they share information and ideas. Jayden pours water down the gutter and watches it pool at the bottom, making a “lake” of brown slime and foam which, based on his enormous grin, pleases him greatly. Deion is filling the wheelbarrow with a combination of wet and dry sand, carefully smoothing the surface after each addition of sand. “This is hard work!” Deion says, stopping to observe his progress. Jayden also stops to look, then continues to pour water into the gutter. Deion notices the wet slime that Jayden has made and lifts some onto his shovel. “Whoa, this is heavy!” he exclaims, and puts it in his wheelbarrow.

“There’s a lot of water,” answers Jayden, who watches as Deion attempts to move his now full wheelbarrow to the other side of the pool. After three attempts to lift it, Deion manages to maneuver the wheelbarrow through the sand, using his entire body to accomplish his goal. He dumps the sand and starts to smooth it with the back of his shovel. Jayden observes the tracks in the sand made by the wheel of the wheelbarrow and says to himself: “It’s like a train track.” The teacher nods in agreement and looks at an empty wheelbarrow nearby. Jayden moves to get it and begins to make his own tracks. He stops to admire his work then flips the wheelbarrow over and drags the handles through the sand, now making a double track.

On the other side of the sand area, Eloise is making castles in the sand. She carefully fills the entire sand mold with dry sand, quickly flipping it over so as not to lose any of its contents, then frowns when it doesn’t stay together. “I wonder why it didn’t stay together?” a teacher asks, just as Bo enters the sand area. Rather than telling Eloise to just add water, the teacher poses a question to get Eloise to think about why it might not have worked as she had anticipated. Bo walks by on her way to the monkey bars and calmly states: “You need wet sand. The dry sand falls apart.” Eloise nods and gets herself a bucket of water, which she pours on the sand around her. She tries again and creates a molded castle. Raising her arms above her head, Eloise proclaims: “It works!” and begins to make another.

In this short interaction, facilitated by the presence of sand and a peer, Eloise demonstrated the seven essential skills
children need to thrive in this century, as described in the book *Mind in the Making* by Ellen Galinsky, president and co-founder of Families and Work Institute. The skills are: focus, self control, making connections, critical thinking, taking on challenges, communication and self-directed, engaged learning.

Furthermore, both groups of children demonstrate how sand play supports the development of physical, social and cognitive skills. Large-muscle skills develop as children dig, pour, scoop and transport sand and water. Eye-hand coordination and small-muscle control improve as children refine their movements, such as when Deion was using the shovel to level the sand. Playing in a shared environment demands that children learn to cooperate, share materials and compromise when necessary. While Jayden could have become upset when Deion helped himself to the slimy sand, he seemed to understand that the peer needed it for his project and was interested to see how he would use it. Finally, the children explored mathematical (more/less) and scientific concepts (dry/wet, movement, flow, physical characteristics of materials, cause/effect) while exploring their self-initiated interests.

One final example illustrates the value of sand as it relates to dramatic/pretend play. Brie and Quinley are in the kitchen area in the sand making cakes. Brie uses a muffin tin and is filling each hole with a scoop of wet sand she gets from the ground. Quinley maneuvers the spout of a large water container by pulling it towards her to release the water. She fills a large bowl with water, shuts off the spout by pushing it in, and then places her bowl on the red board in front of her. She begins to add sand to the water. “I’m making strawberry vanilla cake,” she says to Brie, who nods appreciatively and says: “Mine is strawberry too.” They work in silence, and then Brie carries her completed dish to the playhouse nearby. “It’s for the store,” she tells Quinley. “Mine’s for the store too,” says Quinley as she tries to pick up her bowl and discovers it is too heavy. “I need your help,” she says to Brie, and the two carry the bowl together to the house. Coming back to the kitchen, they each select a new container and begin cooking as Lili and Laci arrive, neighing, in the sand area. The teacher asks the chefs, “It looks like the horses have come by. Do you have any extra food for them?” Brie and Quinley look at each other and Brie says: “This food is for people.” “Yeah,” agrees Quinley. “It’s for people.” The horses neigh again and announce that they are not hungry anyway as they run up the hill out of the sand area. The two girls watch them go and resume their cooking.

As children play together in the sand, they converse with each other about what they’re doing, talk about topics that interest them and engage in pretend talk to create scenarios for their play. Role-playing (being cooks), using props, pretending (cakes having particular flavors), incorporating new information (is this food for the horses?) and communicating all involve a tremendous amount of abstract thinking on the part of the child. The perspective-taking needed in dramatic play scenarios like this facilitates the development of executive functioning, an essential self-regulating skill for children navigating the world today through planning, organizing and making decisions.

As Gopnik asserts: “One of the things we’ve learned is that when children engage in pretend play, have imaginary friends or explore alternative worlds, they are learning what people are like, how people think and the kinds of things people can do. This helps children learn to understand themselves and other people. We also have evidence that this kind of understanding leads to social adjustment in school and social competence in life.”

The sand area is a place where children have fun, get messy, use their imaginations and learn! Sand is a medium that invites children’s participation and gives them opportunities to grow while meeting their individual developmental needs. The learning that occurs comes from the children themselves as they explore and discover with guidance from observant and supportive adults.

Bonus feature: Video available online: [http://stanford.io/1oJrabz](http://stanford.io/1oJrabz)
How often do we expect children to understand our perspective, but don’t take the time to understand theirs? When I read this question on a parenting website, I appreciated the challenge it set for adults to look at their interactions with children and reflect on how they use perspective-taking skills in their own lives. It asks adults to take a fresh look at their own needs and how these needs can affect their understanding of a young child’s perspective.

Imagine this ordinary scene at a park: A parent asks a child to share a toy—say, a sand bucket—with a new player who just happens to be playing nearby. Why? Does the adult feel it will help develop the child’s perspective-taking skills? Surely, it must feel good for the new player to have a bucket to build sand castles with. That, in turn, should make the sharer (the child) feel good about the deed. Right?

Consider the power the adult has in this sharing example in determining whose perspective is more important. The adult has a need to teach sharing, the new player has a need for a bucket and the child who has brought sand toys to the park has a need to play with them when and how he/she wants.

Whose perspective should be taken into account? How much should adults really expect young children to have an understanding of others’ needs and adjust their behavior to suit others?

Some researchers suggest that young children are not yet able to fully understand the perspective of another. In a study conducted by Alison Gopnik, PhD, professor at University of California, Berkeley, and Betty Repacholi, PhD, professor at University of Washington, titled “Early Reasoning About Desires,” the researchers concluded that 14-month-old children told that the experimenter liked broccoli were not able to offer the experimenter what she really liked. Instead when asked, “Give me what I like, they consistently offered their own preference, the Goldfish crackers. But by 18 months, children were able to take into account another person’s preference. It is generally accepted that very young children tend to behave egocentrically when assessing another’s perspective and have to develop perspective-taking skills over a period of time (Epley, Morewedge, and Keysarb, Journal of Experimental Social Psychology, 2004). Developing perspective-taking skills often requires an understanding that others may not interpret the world exactly as you do.

At Bing, the teachers are trained to understand the perspective of children as a way to create relationships based on trust and respect. We believe young children learn perspective-taking skills when we are willing to understand their perspective. When we take time to listen, when we take them seriously, when we care about what they think and feel, children experience firsthand the impact of perspective-taking.

Let’s go back to the toy-sharing example in the park to gain a better understanding of how we as adults can support and help develop perspective-taking skills. The first step is to be willing to let go of our own perspective, and to become more neutral in our approach. Generally, young children are very territorial about their belongings. If they choose to bring them to the park, they expect to be able to have access to them when they want or need them. Children tend to believe that their perceptions of the world are accurate reflections of its properties and that others will therefore perceive the world as they do. So, from this perspective, sharing with a stranger is a difficult task, especially if a trusted adult appears to acknowledge the strangers’ needs first. Even if adults approach the idea of sharing in a calm and pleasant manner—“Wouldn’t it be nice if you could share your bucket? I think he would really like to build sand castles too”—the underlying message is the same: Give up one of your toys.

Instead, asking the child a few questions about his play plans may give adults some insight. For example, “You have brought two buckets today. What is your plan?” The child may respond: “I am going to build a castle, so I need to use both buckets.” Listening first will help adults better understand the child’s perspective and make it possible to share it with any child who wanders towards the toys: “Hi, did you know he is building a castle? Would you like to watch him build with me?” At this point adults can ask the child if he is going to need any help. Adults can then offer themselves and the inquisitive stranger as potential helpers. By allowing the child control of the play situation, adults may find he is much more willing to offer the use of a bucket.

Once young children interact with an adult who is willing to listen and respect their perspective, they are more open to seeing another’s point of view. They also learn it feels good to be taken care of in this way. If we teach children to understand other people’s intentions, they are less likely to jump to conclusions about the behavior of others. They are less likely to be possessive or aggressive. The more experience young children have in this type of positive interaction, the more perspective-taking skills they develop.

Consider the following example:

Two children wanted to fly their own individual kites in parallel—while running down a hill. The hitch was, every time they tried it, one would reach the bottom of the hill before the other and the other would have to wait. After figuring out with a teacher that this inconsistency frustrated both of the children, they came up with the following solution:

“We are making something for each other. It’s a kite with two handles. Then I can hold it and fly it together, and so can Olivia.” “Yeah! And I have made one, too. We can both use it at the same time.”

Perspective-Taking: Considering Different Points of View
By Sarah Wright, Head Teacher

Photo not available online.
In the classrooms, we have supported many occasions of successful social interaction by helping children understand that others may not interpret the world exactly as they do. Ellen Galinsky, president and co-founder of Families and Work Institute, supports this view in her book, *Mind in the Making*, stating “Perspective taking goes far beyond empathy; it involves figuring out what others think and feel, and forms the basis for children’s understanding of their parents’, teachers’ and friends’ intentions.”

This following example shows advanced perspective-taking skills from a young child, Emily. She really wants her older sister (Landry) to be remembered by Bing alumnus Zachary in good light and for him to think she is doing well! It is an example that also shows this young child’s ability to figure out what others, including her sister and friend, may think or feel.

**Emily** (4 years): Zachary, who was in our class at Bing last year, was at school visiting today.

**Landry** (5 years): Oh, yeah! I remember him.

**Emily**: I told him you said, “Hi.”

**Landry**: But I didn’t say, “Hi.”

**Emily**: I know. But I didn’t want him to think you were dead.

This example is incredibly complex for a 4-year-old, showing her understanding that other people have different thoughts, intentions and feelings than she does. If we want to develop our children’s understanding that others have different likes, dislikes, intentions, thoughts and feelings, what must we do?

We must consider the power adults have to decide whose perspective is honored and whose perspective is not. If we can shift from our own perspective to helping young children feel understood, we are taking the first important step. Children learn perspective-taking skills when they see we understand their perspective—by listening carefully and taking their ideas seriously. We can talk about feelings (theirs and ours) as well as help clarify the intentions of other people. In turn, they can learn over time how to understand another person’s perspective because they’ve experienced it themselves with the adults in their lives.

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**Water Conservation in West PM**

With the current drought, Bing’s teachers have been talking with the children about what a drought is and the importance of using water responsibly in the classroom, both indoors and outside. The children see water conservation in action as teachers recycle water outside and include children in the process. Water first used for pretend cooking is then used for other activities such as making rivers. Teachers and children also pour leftover water into the gardens and grass. We made a sign saying “Severe Drought: Please help us save water” and posted it in the sand area near the water bucket. This sparked conversations about the drought and generated ways that we can save water at Bing.

—*Reporting by Sara Tamony, Teacher*

**How do we use water?**
- For drinking
- Washing hands
- Taking a bath
- Using the sink
- Watering plants
- Washing clothes

**How do we save water at Bing?**
- “We could recycle the water...like putting it on plants.”—Amina
- “Well, maybe we could not dump so much water in the sand area.”—Andres
- “Maybe we could use the same water over and over again.”—Julian
- “By not putting a lot of water in the buckets so other kids know.”—Ollie
- “We can put water that’s leftover in the plants.”—Kieran
- “Take a tiny bit...the size of a mouse.”—Stephanie
- “By not wasting any.”—Daniel
- “Not use as much. Turn off the sink and hose when you’re not using it.”—Kashi
- “You should turn off the water when you are done using it.”—Evera
- “We could have a can and a gutter and a spout and we can save water and get water from the rain.”—Alexander G.

Photos not available online.

From left: The pipe set-up at the water table facilitates recycling of water. Children reuse water for pretend cooking in the sand area.
The Hats and Headgear Project: A Shared Curriculum Experience Between Classrooms Creates a Community of Hatters

By Parul Chandra and Nancy Howe, Head Teachers

“In each weather I wear hats; in sunny or in cold I wear hats.”
—A child in Center Room

During autumn quarter, Center Room went mad for hats and headgear. The classroom’s extensive hat collection and access to recycled materials, which children could use to create their own hat, appear to have generated a strong interest in hats for the children in both morning and afternoon classes. At first, teachers noticed the children using hats as props in their imaginary play. At the design table children in both AM and PM sessions began to create their own crowns and headgear. They became skilled with using tools and materials, including scissors, staplers and tape, as they constructed their crowns and inventive headgear according to their own design, finding inspiration from each other and in objects from the recycled materials bins: yarn, pipe cleaners, bottle caps and craft sticks. They went on to use their creations as props for pretend play scenarios.

A shared “Hats and Headgear Project” developed organically from the children’s growing interest in hats, their questions and theories and their desire to learn more. Teachers on both teaching teams collaborated, inspiring one another during planning sessions, sharing materials like books, songs, photos and anecdotes. The teams also set up inter-session curriculum “provocations”—something that is designed to spark children’s interest and discussion—like a hat shop that became a weeklong shared activity on the patio. As our hat collection grew and expanded, it became a springboard for an exploration of a broad range of head coverings. There were hats associated with professions (construction worker, chef, sailor, army officer, engineer and firefighter), hats from other cultures (Mexican sombrero, Indian wedding turban, Chinese rice farmer’s hat and French beret), vintage hats (from cloche to Stetson), helmets (for knights, astronauts, bicyclists, divers and football players), seasonal hats (sun hats and knitted winter ski hats), sports caps, bandanas, scarves, and cloaks with hoods.

Curiosity as to the function of different hats provoked questions and helped children generate their own theories about the purpose of each:

“I like to wear my hat so no one can see me!”
“You wear hats so you don’t get sunburned on the head and in San Francisco because it is so cold.”
“Me and my brother wear baseball hats when it’s sunny. It keeps the sun out of your eyes.”
“I wear helmets. They’re like hats, but they’re just a little harder.”
“Firemen wear them, so no heavy piece would fall on their head.”

Understanding the functions of each hat allowed children to use them for a variety of purposes to accessorize and enhance their imaginary play: hats for taking a trip, fancy hats for having a tea party, hats in a hat store, chef’s hats for cooking in the kitchen, cowboy hats for galloping on stick horses, engineer caps for riding on the train, firefighter helmets for quenching infernos, a captain’s hat for sailing on the boat and a pilot’s hat for navigating a plane made with large hollow blocks. As the children watched Bing carpenter Gene Aiken construct a new playhouse in the sand area, they spontaneously put on hard hats and incorporated tools. “We are builders, right?” Such real and imagined scenarios allowed the children to take on adult roles, create rules and boundaries on their own or cooperatively and to have opportunities for perspective-taking and negotiating.

Hats and Literacy

Books about hats played an important role in providing children with more information about the topic. Once the stories were familiar, the children acted them out as well. “Think dramatically!” advises Vivian Paley, a celebrated author and noted early childhood educator. Children are natural actors, creating characters and plots in their imaginary play. They use make-believe as a critical thinking tool to explore and expand upon what they learn from the world around them. In storyplays, as they act out familiar books, children have the opportunity to develop flexible thinking and become the protagonist, gaining a deeper appreciation and understanding of the stories. It also gives children with different learning styles the chance to feel like valued members of a shared experience whether as an
actor, prop designer or narrator. *Caps for Sale*, by Esphyr Slobodkina, a classic story about a salesman whose hats are stolen by a bunch of monkeys, provided the children with an opportunity to get to know the plot, gain an understanding of the characters, create props and then transform the story into a play. Practicing turn taking, following the script, staying in character and working together allowed the children to see the narratives in books from a new perspective.

Other books about hats that the children and teachers explored together—*The Magic Hat*, *Milo’s Hat Trick*, *Jennie’s Hat*, *The Scarecrow’s Hat* and *Do You Have a Hat?* — were not only a springboard for dramatic interpretation but for parades, songs, magic tricks and developing a collective hat vocabulary.

**Hats and Numeracy**
Mathematics often grows naturally out of our play-based curriculum. We saw this play out in the activities that arose from reading *Do You Have a Hat?* After reading the story, teachers invited children to wear their favorite hats to school. We realized it would present a wonderful opportunity to create a chart that represented the various colors of the children’s hats and, through this chart, expose children to math concepts. It could provide an ideal learning experience because math is most resonant for young children when carrying personal meaning.

As children arrived at school on the “Favorite Hat” day, we invited them to find a square of colored construction paper that matched the main color of their hats. After writing their names on their square, they then found the column corresponding with their hat’s color and added their square to the column. Along the left of the chart, teachers kept a running tally of the number of each color.

During the process, the children were able to compare the amounts in the various columns. At story time, we defined and investigated our hat chart, including how to use the numbers along the left side. As we counted each column’s results, we were practicing various developmentally appropriate numeracy skills, including number use and recognition, comparisons of groups of objects (in this case, “votes”), cardinality (the understanding that the final number named is the quantity of the objects that were counted) and subitization (rapid, accurate and confident judgments of number performed for small numbers of items). Along the way, the children also learned and/or practiced vital math vocabulary, including the terms more, most, less and least.

**Hats and Self-Portraits**
On “Favorite Hat” day, children in the morning and afternoon sessions created self-portraits while wearing a hat. The teacher placed a small mirror to one side of each child’s drawing paper and displayed a variety of hats for them to choose from. Drawing a self-portrait wearing a hat allowed children to observe, reflect upon and deepen their understanding of their unique physical characteristics, as well as adopt transformative identities designated by the function of their hat.

The “Hats and Headgear Project” continued as children inspired one another at the design table to create more elaborate and inventive headgear and crowns and incorporate hats into their dramatic play. Later in the quarter after the project had ended, two children were observed riding on classroom brooms across the yard wearing traffic cones on their heads and exclaiming, “Only children with pointy hats can ride these brooms!”

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From left: Selecting recycled materials to decorate their paper hats. A child puts her name card in the column that reflects the color of her hat. Using masking tape to add notions and dried floral accessories to a vintage hat.

**Storytellers and Scribes**
Given a simple prompt in the form of a drawn outline of a hat, the children developed stories inspired by their imagination.

*Once upon a time there was a hat. It was on the ground. And then, one day a girl picked it up. She put it on her head. She wore it out every day. Then one day it fell off her head. She just left it because she didn’t know the hat had fallen off. The hat was on the ground again. It felt sad.*

*Once upon a time, there was a scarecrow named Zeke. He sells hats. He sells blue hats. One day a girl bought one of the hats. She wore it on her head and went for a walk. On her walk, she saw another scarecrow. This scarecrow had no hat. She went to the scarecrow and said, “Why don’t you have a hat?” He said, “I don’t know why. None of the stores were open so I couldn’t buy one.” The girl said, “O.K. maybe I’ll see you a different day. It’s almost dinnertime, so I need to go. Bye.”*
Ramping Up
By Mark Mabry, Head Teacher

The unit blocks surrounding our indoor carpet area and the hollow blocks on our patio present children with similar conceptual and constructive challenges, but on very different scales. The basic unit block is solid maple and measures 5 1/2 inches long by 2 3/4 inches wide by 1 3/8 inches deep; all other pieces are geometrically related to this basic unit’s length. Hollow blocks are larger and, as the name implies, are constructed as open pieces. The basic, four-sided hollow block measures 11 inches long by 11 inches wide by 5 1/2 inches deep, with similar relationships between the lengths of the pieces. With both sets of materials, children experiment with notions of geometric and spatial relationships, stability and balance and symbolic representation. The essential quality of these building materials is their mathematical relationships with each other: the “unit”-based measurements of halves, doubles and quadruples provide opportunities for developing a fluency with math, geometry and physics through play. The collaborative nature of block-building develops language and social skills. Balance and collapse teach both the nature of gravity and the value of experimentation and persistence. While block-building with unit blocks tends toward the representation of “scale model” ideas, hollow block constructions often inspire “inhabitable” and “actionable” ideas. Children often build structures to play in or on, such as offices, helicopters and castles.

Near the end of the last school year, we saw a core group of our soon-to-be kindergarteners develop an affinity for building with hollow-block ramps. In particular, they kept coming back to the problem of building an extended ramp that they could actually use as an incline for climbing up or sliding down. Through trial and error, they mastered how to successively stack the ramp blocks in higher iterations to produce an extensive slide. While they enjoyed using their creations themselves, they were especially happy to invite others to try out their constructions.

At the beginning of the subsequent school year, some children, inspired by their recollections of block play with their older peers, tried to recreate these ramp ideas with the hollow blocks. As is typical in a classroom community, the seeds of an idea are planted by a small group of children, but their endeavors often pique others’ interest and take root as a “big idea,” playable and revisited by many participants.

One morning two children started building a series of steps with a teacher’s assistance and supervision that rose above their heads. (For safety reasons, typically children are guided not to build above their shoulders. When they do, teachers are there to carefully supervise and support.) Once they reached what they determined was an apex of appropriate height, they began to brainstorm about how they could then make a slide or ramp to return to the ground. Whereas they seemed to have mastered the concept of adding one more horizontal block for each iteration of a series of rising steps, they seemed somewhat stymied about how to use the ramp blocks to create the descent they desired.

They had figured out that stacking rectangular blocks to make a set of steps works by placing one additional block atop each adjacent stack. Their first attempts at creating their slide were based on extending this idea: If steps were constructed using stacks of flat blocks, shouldn’t a large ramp be likewise constructed using the ramp blocks? Interestingly, simultaneous to these children trying to solve this conundrum with the hollow blocks on the patio, another child was independently exploring similar spatial questions with unit blocks inside the classroom.

After watching them try different unsuccessful strategies for a while, a teacher picked up one of the ramp blocks and
said, “Show me where you want this to be to start your slide.” One child pointed to a space in midair adjacent to the top step. The teacher then posed the question, “So how can you get this block to stay up here?” and after a cogent pause, both children excitedly began using flat blocks to build a platform to support the ramp in the desired place. The teacher and children repeated this back-and-forth interaction for the next couple of ramp placements and then the children independently completed the rest of the slide to the ground.

One of the most important geometric properties of the hollow blocks is that their relationships to each other allow for different configurations of blocks to span an identical space. Blocks of some sizes grew scarce, which spurred the children to generate architectural ideas that seemed more efficient. For example, they started using more half-size blocks to create the support towers because they had already employed the majority of the basic square blocks in the stair construction. They also discovered that they could span the space from the ground to the ramps using fewer blocks if they oriented the blocks vertically rather than horizontally.

One might have expected that children who had invested so much time and effort into realizing their vision to be somewhat protective of the resulting construction. But on the contrary, the children’s “pride of ownership” quickly turned into a desire to share their invention with others. When curious children arrived on the scene, they were invited to try out the slide. The builders were excited to show others how it worked and to provide “tips” and safety instructions for its use. In doing so, they also ignited a spark for the classroom community to continue exploring these building ideas over the next few weeks.

In latter days, when some of the original slide constructors returned to the hollow blocks, they were inspired to take their building to new levels—quite literally. Not only did they want to try to build their slide higher, they also wanted to add more complexity to their structures. And they found a lot of help in doing so. They had built an enthusiastic group of collaborators by sharing their invention earlier. Because of the blocks’ relatively large size, building projects can span large distances, which often creates opportunities for children to work on a variety of ideas on different parts of a structure. In one of the ensuing slide constructions, a second set of perpendicular stairs arose to accommodate the increased traffic to the summit. One day a ticket booth attached to the stairs appeared.

As the children built the slides higher, they also built them longer, which meant they often encountered obstacles to work around. When a slide ended at the very edge of another group’s nearby “ice castle” block construction, the slide builders consulted among themselves and decided to add a 90-degree turn at the slide’s base to avoid it. Solving that problem led in turn to a new goal: to prolong the sliding experience as far as possible, even after descending to the ground. It soon became de rigueur to extend the slide along the ground, passing under a low table on the patio where children would have to duck down low as they pulled or pushed themselves along the blocks, squeezing under the table. On one occasion, the children continued the path of blocks over the agapanthus plants that border the patio, and were overheard discussing how to surmount the next obstacle—the fence dividing East and Center room!

Several months later, children recreated the slide structure as a ski slope, using flat boards as “skis” on which to masterfully and rather artfully descend.

What motivated these children to work so hard and persistently at figuring out how to bring their various ideas to fruition? What kept them coming back, building upon their earlier experiences? What inspired new collaborators and experienced hands to see this play as worthy of collaboration, negotiation and effort?

While engaged in these hollow-block experiences, the children encountered challenges, problems and opportunities for negotiating ideas that were intrinsically meaningful to them. They were driven by desires to build something bigger than themselves, to realize a lofty goal, to feel pride and satisfaction in their accomplishments, to build something both useful and fun by themselves—for themselves and others. Or as put more eloquently in their own words: “We want to make a big slide to go down!”
Counting on Play: Mathematic Competency in a Play-Based Curriculum
By Todd Erickson, Teacher

Children are natural and active mathematicians, innately interested in patterning, ordering and classifying but capable of even more complex mathematical work with thoughtful outside support. Supporting this work is important because not only are mathematic elements such as logic and reasoning crucial for thinking, but many researchers have found that math competency predicts academic success at both elementary and high school levels, according to child development researcher Greg Duncan, PhD, and his colleagues.

As Bing teachers strive to prepare children for academic careers beyond our program, we diligently reflect on our many roles as early childhood educators. A related question examined by the teachers in Center PM classroom is a common one to early childhood educators working in programs like Bing: What is our role as teachers in providing children a developmentally appropriate mathematics foundation in a play-based nursery school setting, and what are the children learning in this process? In my case, this question emanated from my graduate studies at San Francisco State University’s education program (early childhood concentration), which challenged students to become not only early childhood educators but early childhood researchers, tackling meaningful classroom questions and challenges through documentation, analysis, interpretation and subsequent action. This reflective, proactive stance deepens our practice and fortifies our profession. The outgrowth of the above Center PM question has also become the genesis for a presentation I have shared locally and nationally.

Before teachers can grapple with the relationship between play and math, we must understand what math competencies are expected of our children as they graduate from Bing. Developed by our state’s Department of Education, the California Preschool Learning Foundations (2008) identify knowledge content for preschoolers in broad discipline areas such as language and math. In terms of math, the Preschool Learning Foundations focus on five large content areas: number sense, algebra and functions, mathematic reasoning, geometry and measurement/unit.

Armed with an understanding of these content areas, teachers can strategically extend the math play that takes place every day at Bing through activities such as pouring water, building with unit blocks and digging in the sand. Through a process known as mathematization, teachers can subtly become a guide during children’s spontaneous play, sometimes with an open-ended question, sometimes to define terms, sometimes to pull the children’s thoughts together (Clements & Sarama, 2009). For example, if children are building structures with unit blocks a teacher might remember the Learning Foundations focus on mathematic reasoning and ask, “I wonder how we could figure out how tall your structures are?” The question invites children to share their guesses and test their strategies about measurement.

Essential to children’s learning and Bing pedagogy is play, the lens through which children naturally experience their world. One example of a Center PM play-based math experience sprang out of a classroom-wide interest in running and jumping. Using the appealing name, “The Running and Jumping Club,” the teachers offered children a chance to repeatedly run a course together while timing their collective efforts. The children recorded and then compared each run. Their developmentally appropriate use and recognition of numerals extended their number sense, a Learning Foundations competency. The children also took turns jumping as far as they could, then recording their jumps on personalized charts. As children measured their jumps with unit blocks and used the charts to compare the progress of their jumps, they worked with measurement/unit, another Learning Foundations content area. Also important to the children’s experience was the accompanying “math talk,” including terms like more, less and total.

Play provides Bing children with meaningful contexts through which mathematic experiences can be discovered. Through intentionality, integration and reflection, teachers can become both learners and researchers as we guide children down the vital path of increasing math competency.
The City That Center PM Built

Over the span of a week, the children of Center PM raised a city from the ground. Armed with small wooden blocks, Elmer’s glue and their own knowledge and imagination, the children became construction workers, architects and city planners. The city emerged gradually—with housing and commercial buildings, a complex network of roads and rivers and features such as green spaces, parks and even a city hall. As they embarked upon this process, the children explored and shared their knowledge about the spaces in which people lead their lives. They also connected their city to The Curious Garden (by Peter Brown), a book read at storytime that week, and built new ideas and narratives about cities and city life.

—Reporting by L. Jasmine Dobbs-Marsh, Teacher

Constructing a City
“Look what I’m building. In the city the construction workers build the buildings.”—Santi
“These are towers, skyscrapers.”—Mason
“There’s a skyscraper here too. This building is like an upside down T.”—Kaenon
“Parks are at cities. Like this. Parks have play structures. But some parks don’t have play structures, only grass and trees.”—Elise
“Look. I can make two ramps for a skateboard park. They skate on ramps. And a small cylinder thing they can balance on.”—Kaenon
“Dada go to a skateboard park and I ride my scooter to the skateboard park.”—Hugo
“This is the United States. That’s in this world.”—Max
“What do you think this is? It’s a train! For the city!”—Zoe
“I’m going to use this big one. It will be a park. Right in the middle.”—Terra
“I’m making a garage. It’s going to be big!”—James
“We need a fire department. The cars can be firetrucks. I’ll put red on it. It needs windows.”—Jonathan
“I’m making a motorcycle. It’s a police motorcycle. This police motorcycle can fly to the tops of buildings.”—Daniel
“I’m making a police motorcycle too! And they need a police department where the police work. The police department needs to be blue.”—Zion
“Do you think the people in this city have any places to eat? That’s what I was wondering! What if they don’t? Then they’ll be very hungry and they’ll have to eat the glue.”—Elise
“Well I made a restaurant.”—Aaron

Conceptualizing Transportation:
Roads and Rivers
“A city needs cars. And a road. Okay, I’ll make a car. The road can turn over here. And here.”—Zeke
“Here’s houses. And there’s a flat one. It’s a road. It’s by the houses.”—Callum
“Let’s draw the road over here…Oh no. This place that I drew was too small for a road. So I think I might make it a river.”—Zeke
“The river goes through the houses. And the people can swim in it.”—Danny
“And they can fish.”—Tamara
“They need a bridge over the river. Then the cars can go.”—Zeke
“This is gonna be a sign so it goes right by the road. Can I write on it? Alma…”—Sam
“I could make a stop sign. It’s red. And it says S-T-O-P.”—Sydney
“I need to make a tree, but I need green and brown.”—Zoe C.

Stories About Our City
“Once upon a time there was a city. There was a lot of snow and the whole city didn’t get any grass. There’s only boys in this city because girls have a city of their own.”—Patrick
“No! Girls don’t have their own city. Boys don’t either. They have the same city.”—Victoria
“Well there aren’t any cars in this city.”—Natalie
“Yes there are! Look. There’s lots of cars!”—Zachary
“I know how you could describe the highline in a city. Like a monorail—a monorail goes on top of the ground. A subway goes underground. Like BART. A monorail has one rail. Not two like normal trains. Cities also have walls—like the Great Wall of China—to keep bad guys out. It tried, but some people still got in.”—Tilden
A staff development day gives teachers a chance to pause and reconnect with one another as they consider their practice. They are able to discuss their challenges and rediscover the enthusiasm for teaching that brings them into the classroom each day. As Jennifer Winters, director, put it at the beginning of the winter staff development day on Feb. 10, 2014, these days provide “a chance to reflect on what we’re doing, how we do it and how we can do it better.”

During a day’s break from Bing’s busy schedule, teachers shared anecdotes from their classrooms and discussed issues ranging from work/life balance to children’s media exposure. They also saw presentations by two researchers conducting studies at Bing, Maria Barth and Molly Lewis. The staff ended the day by viewing a presentation on children’s block building that Winters and Bing teacher Todd Erickson presented at last year’s National Association for the Education of Young Children annual conference in Washington, D.C.

The first research presentation, by Barth, a fourth-year Stanford graduate student who worked with the late psychology professor Nalini Ambady, PhD, was of a study on children’s interpersonal perceptions and judgments. The fact that young children are dependent on others to learn about the world around them makes them vulnerable to misinformation. Children’s sensitivity to inaccuracy acts as a cognitive mechanism to protect against this. Preschool-aged children are sensitive to speakers’ inaccuracies, such as labeling objects with incorrect names, and apply their impressions to future interactions with those speakers. The current study is seeking to determine whether children are unbiased truth-seekers when the information they are looking for is in regards to themselves.

Similar studies of adults have found that adults prefer and are more likely to endorse self-enhancing information and positive feedback, and tend to be overconfident of their performance. This prompted researchers to wonder whether children prefer positive feedback, even when it is inaccurate. To test this, they designed an experiment with three puppets and a matching game. The first puppet’s feedback on how the child performed on the game was always accurate. The child then played with two inaccurate puppets. One inaccurate puppet always told the child he was right even if it wasn’t true. The other inaccurate puppet did the opposite, telling the child he was wrong regardless of whether it was true or not.

Researchers predicted that young children would prefer the inaccurate positive puppet—the one that always told them they were correct. Indeed, preliminary data suggested that more 3-year-olds than 4-year-olds reported that the puppet that consistently rewarded them knew the most about playing the game. Researchers are currently examining these differences in relation to children’s responses to a self-esteem scale. This study, once completed, could have implications for differentiation of instruction for children with varying self-esteem levels, as well as providing insight into the developmental pathway of self-enhancement.

Lewis, a third-year Stanford graduate student working with psychology professor Michael Frank, PhD, began her presentation by asking her audience to consider what the characteristics of an ideal language would be. She noted that from the speaker’s perspective, language would be simplest to use if it had only one short word that could mean anything. This however would make it impossible for the listener to discern the speaker’s meaning. In contrast, in a listener’s ideal language, every meaning would have its own unique word so that no word was ambiguous. Yet neither of these scenarios describes actual language. In language, there are many words, some short and some long, often with ambiguous meanings. So Lewis and her research team asked whether it would make language easier for both speaker and listener to have a complexity bias—that is, to use longer words to refer to more complex concepts.

The study examined whether adults and children have a complexity bias when learning new words. The research team found that adults were indeed more likely to assign a long word to a more complex-looking object. To explore this bias in children, researchers showed children a puppet and pictures of two of its toys on an iPad. They found that when children were asked to identify the toy with a longer nonsense name, they tended to pick the one with more complex features. This has led Lewis and her team to the preliminary conclusion that complexity bias develops during the preschool years.

Later in the afternoon, teachers turned their attention to one of the most common activities at Bing: building with blocks. They enjoyed the opportunity to observe and contemplate the work that children do in the block area at Bing as well as the ways in which their colleagues support that work. As they watched the video clips created by Chia-wa Yeh, head teacher, they got to witness the exciting ideas that children have around blocks with a degree of removal not possible in the midst of a busy classroom. Winters and Erickson structured the videos to reflect the stages of block building: carrying, stacking, bridging, creating enclosures and building representational structures. The videos captured the spirit and imagination the children bring to their buildings. “I built...” began one young boy—yet as he started to name his finished structure it toppled. Without missing a beat he finished, “I’m building!”

Screening the presentation was a valuable opportunity for teachers to laugh together, as well as notice differences in children’s learning styles and colleagues’ varying approaches with time to appreciate nuances and discuss details.
Shifting the Paradigm: Creating Innovators
By Cole Murphy-Hockett, Teacher

“You cannot discover new oceans unless you have the courage to lose sight of the shore.”
—Andre Gide, French author and recipient of the Nobel Prize in Literature

On Friday, Oct. 18, 2013, Bing Nursery School teachers and staff joined over a thousand other educators and parents at The Nueva School in Hillsborough for a staff development day at the biennial Innovative Learning Conference. Featuring presentations and workshops from approximately 75 leaders in fields ranging from neuroscience to education policy, the theme of this year’s conference was “Shifting the Paradigm.” Over the course of the two-day conference, expert speakers addressed how education has grappled with the changes brought on by an increasingly technological and competitive world.

In today’s world, an Internet connection puts the vast majority of humanity’s cumulative knowledge at your fingertips. The landscape of education has thus changed considerably in the last few decades. It’s no longer how many facts you can memorize or how quickly you can rattle off the capitals of all 50 states. Instead, schools must teach students the skills necessary to tap these vast stores of information efficiently and creatively. As conference presenter Liz Wiseman, author of The Multiplier Effect: Tapping the Genius Inside Our Schools, said: “The critical skill of the next century is not what you know, it’s how fast you access what other people know.”

The ability to learn and recite has become so widespread that many no longer consider it the crux of higher education. According to the undergraduate admissions office at Stanford, students are admitted based on their “intellectual vitality” in addition to academic excellence. Applicants who “seek out knowledge and thus prepare students to succeed in and out of the classroom, we must teach in a fundamentally different way than we’ve been teaching for decades. He believes that contemporary educational models tend to compartmentalize disciplines and thus prepare students to succeed in and out of the classroom, we must teach in a fundamentally different way than we’ve been teaching for decades. He believes that contemporary educational models tend to compartmentalize disciplines because that was what was effective 30 or 40 years ago. “This is what math is. This is what science is. This is what history is.” However, innovation usually happens at the margins between different fields; truly game-changing and revolutionary ideas are born from the merging of previously disparate disciplines.

To truly innovate, however, Wagner says that students must take risks. The problem is that in such a competitive atmosphere, few are willing to do so. Conference presenter Tina Seelig, PhD, the executive director of Stanford Technology Ventures Program and author of inGenius: A Crash Course on Creativity, encourages students to take these risks and thus seeks to promote innovation in classrooms around the world. Seelig considers creativity to be a teachable skill that can be brought out with the correct guidance. For her, creativity is everywhere. Even in more traditionally mechanical subjects like math, students can learn to be creative if teachers ask the right questions. For example, instead of asking a question that has only one correct answer, such as the solution to five plus five, Seelig asks her students questions that have many correct answers.

Which two numbers will add up to 10? By teaching this way, students are learning the same material, but are less afraid of arriving at a different answer than their peers. The benefit of this method is that students are encouraged to be more imaginative and willing to take risks—fear of failure is less of a concern.

Perhaps one of the most important reasons for empowering students to take risks and foster creativity is for their own mental health and well-being. Fear of failure is so widespread among today’s students that academic burn out, depression and anxiety are major concerns for high school and college-aged students. At Harvard University, where Wagner teaches, nearly 40 percent of students are being treated for some mental health issue. The pressure to succeed is omnipresent, which is especially unfortunate, Wagner contends, because “people tend to learn so much more from the failures than from their successes.”

According to conference presenter Robert Sapolsky, PhD, a professor at the Stanford University School of Medicine and author of Why Zebras Don’t Get Ulcers, the stresses and pressures of today’s world have fundamentally altered the way humans get diseases. Unlike 100 years ago, people in westernized societies are no longer succumbing to malaria or malnutrition. Instead, people are becoming ill because of the slow accumulation of stresses inherent in everyday life. Nearly all chronic diseases that plague our industrialized society, such as diabetes, heart conditions or obesity, can be tied back to the kind of lives that we live. Biologically, stress is something that is supposed to help us survive. For example, thousands of years ago, a caveman encountering a lion would survive because of the cascade of biological processes that were activated upon witnessing the stressor. The caveman’s heart rate would increase, and energy would be funneled to muscles and critical systems that enable the caveman to either fight or flee. However, because most people in today’s world aren’t running from lions, this bio-
logical stress response is maladaptive to the daily problems we encounter. When these stress responses are turned on for months or years in reaction to school or work, our health severely suffers.

One benefit of teaching creativity in the classroom is thus empowering students with the mindset that failure is okay and that there is no one “correct” answer to any problem. In doing so, we are not only teaching creativity, but also flexibility and resourcefulness. The earlier we can begin doing this in a student’s career, the better. Children are born naturally creative and innovative, as Wagner says, “it’s in our DNA.” A great deal of our philosophy at Bing has always centered on encouraging creativity and empowering children to experiment and use materials in different ways. We believe that it is our role as teachers to guide children as they discover and make sense of the world. We always provide open-ended materials that have infinite potential such as blocks, clay, paint, sand and water. Every classroom has design tables where children are encouraged to re-purpose objects such as bottle caps, paper tubes and old CDs. Moreover, children have the opportunity to choose their own activities throughout much of the day. Seelig contends that creativity can be found in many different mediums, and thus a child who is not drawn to creative expression in art or block-building can innovate elsewhere in the classroom. Finally, teachers ask open-ended questions that are designed to promote critical thinking and problem solving.

This year’s conference allowed leaders in the field to enter a conversation with teachers and individuals who care passionately about the future of education. Bing head teacher Parul Chandra sums up the conference as “being able to connect with other educators on a high level, allowing us to really be thoughtful about what we do in the classroom, and really being able to take action and see the bigger picture.” The Nueva School will host the next Innovative Learning Conference on October 15 and 16, 2015.

CAEYC Conference
By Nandini Bhattacharjya, Teacher

This year, many teachers from Bing Nursery School made presentations at the California Association for the Education of Young Children’s annual conference. The event, held April 3-5, 2014 in Pasadena, gives teachers, program directors and researchers opportunities to share with others their work with young children, changes they made in their own programs and their research. Attending and presenting at the CAEYC conference is always fun, educational and inspiring. Following are some of the highlights of our presentations.

In Examining Your Role as an Educator: Nurturing a Culture of Creative Thinking, Peckie Peters, head teacher, and Bev Hartman, head teacher and director of the Bing Institute, explored the question: What is creative thinking? They shared the viewpoint that creativity is not limited to the area of creative arts but can be nurtured and should be valued in all the areas of the classroom. They also gave teachers strategies and tools that would guide them to foster creative thinking in early childhood classrooms.

In Potential of the Learning Environment: the Role of the Environment in Enhancing and Integrating Creative Thinking in Children, Parul Chandra, head teacher, and Nandini Bhattacharjya, teacher, presented on how the learning environment plays a vital role in supporting creative thinking, an important skill to nurture in young children. They brought into focus some of the key elements in a learning environment that help foster creative thinking: displays that spark children’s interest and classroom spaces, indoor and outdoor, that children can use in a self-directed manner to express this kind of thinking.

Jennifer Winters, director, along with Todd Erickson, teacher, discussed the history and use of unit blocks in their presentation, Block Building: A Teacher’s Role. The Lessons from the First 100 Years Forward. They also talked about ways to guide children in block play in the classroom and the importance of this material in every early childhood setting. (For more information, see pages 24 and 27.)

Erickson also gave a presentation on math, Counting on Play: Creating a Preschool-Aged Mathematics Foundation in a Play-Based Curriculum. He described various techniques that allow play and mathematics to meaningfully intersect in a play-based learning environment. (For more information, see page 22.)

Kitty Pecka, head teacher, presented Creative Art for the Young Child: Inspiring Creative Thinking through Visual, Tactile and Auditory Curriculum, focusing on her work with 2-year-olds.

We were elated by the positive feedback all of our presentations received. We hope teachers from Bing will continue to inspire and enhance other programs by sharing the work we do with children in our very own classrooms.

Self-Portraits

By Oliver K., 4 years 3 months

It’s winter so I have a coat and
the cat also has a coat.
By Siena S., 4 years 7 months

By Graham S., 4 years 10 months
Director Jennifer Winters, research coordinator Chia-wa Yeh and teachers Todd Erickson and Melissa Guevara traveled to Washington, D.C., in November for the annual meeting of the National Association for the Education of Young Children conference. The event is the largest gathering of teachers, researchers, program administrators and leaders in early childhood education. Therefore, it is an opportunity to advance and share work and research in children’s critical period of development and learning. The conference offered hundreds of presentations and exhibits, including many featured sessions on topics including play, creativity, curriculum, language and math.

The presentation made by Winters and Erickson, *Block Building: A Teacher’s Role. The Lessons from the First 100 Years Forward* was inspired by the 100th anniversary of unit blocks—the wooden blocks common in preschools in the United States. Today’s unit blocks have their origins in play materials advocated and manufactured in the early 19th century by German educator Friedrich Froebel. They were ultimately honed by American education reformer Caroline Pratt in the early 20th century. Pratt used the unit blocks and other open-ended materials to provide children an active, experiential education. Today they’re one of the five basic, open-ended materials—blocks, clay, paint, water and sand—at Bing Nursery School as well as a centerpiece of the early childhood curriculum. Importantly, unit blocks are multi-disciplinary and touch on many domains of child development: cognitive, emotional, physical and social. (For more information about unit blocks, please see Jennifer Winters’ director’s column in the 2013 *Bing Times*, “100 Years of Blocks: Why Blocks Continue to be a Cornerstone in the Curriculum,” available at http://stanford.io/1tRa6kv.)

The presentation explored the teacher’s role in supporting block-building. After offering suggestions, Winters and Erickson opened up the forum for attendees to volunteer additional ideas. They showed several video clips featuring Bing teachers working with children to illustrate strategies teachers can use to support block-building in the classroom. After viewing each clip, produced by Yeh, the attendees discussed the benefits to the children as well as the teacher’s vital role in the interaction.

Erickson also presented *Counting on Play: A Preschool-Aged Mathematics Foundation in a Play-Based Curriculum*. He discussed ways to help children grasp math concepts in a play-based program. He spoke about his own experiences using a project-based approach. Additionally, he examined math as it grew out of the daily classroom activities and repeated play experiences. (For detailed information on his presentation and curriculum in the classroom, see page 22.)

The Bing staff who attended the conference was energized by presenting and inspired from learning from other early childhood educators. They left feeling fortunate to work with young children and excited to share new ideas and information with the rest of the Bing staff.

**Visitors from Abroad**

Above, from left: Seventeen administrators and educators from the Poppins Nursery School in Japan visited Bing in November 2013. Among those pictured are Noriko Nakamura, president of Poppins Corp. (center, with scarf), and Bing Nursery School staff Jennifer Winters, director (center); Beth Wise, assistant director (fourth from left, back row); Beverley Hartman, head teacher and director of the Bing Institute (third from left, back row); and Chia-wa Yeh, head teacher (far left). Fifteen preschool directors in Shanghai visited Bing in July 2014. Left: Fifteen preschool teachers and directors in Taiwan visited Bing in February 2014.
A state-of-the-art three-story school rises from a vast grass-covered field in Ongkharak, Thailand. Srinakharinwirot University established the Ongkharak Demonstration School and Educational Research and Development Institute in 2008, serving children from kindergarten through secondary grades, with plans to expand to high school in the next few years.

Bing Nursery School director Jennifer Winters and I visited the university and the demonstration school in December 2013. During our stay we saw the demonstration school’s programs in action and Winters presented a talk we prepared together at the institute’s 2013 academic conference. Our presentation was on how national identity and culture influence and shape the developing child.

Our trip had been set in motion by a visit to Stanford in January 2013 by a delegation of faculty members from the Thai university. University president Chalermchai Boonyaleepun, MD, invited us to present at the institute’s academic conference 2013 and to visit the demonstration school to meet with the teachers and director to discuss best educational practices in early childhood.

Based on a child-centered approach to learning, the school encourages children to explore, work collaboratively, learn through play and build cognitive skills through in-depth experiences with materials, peers and teachers. Atriums open directly to the sky, classrooms are spacious and modernly furnished with natural lighting spilling in the wide windows. Work areas are set up for collaboration and exploration. In the center of the atrium with walls that reach three stories high is a large sand pool, supplied with baskets of shovels, buckets and sand toys for the younger students. Children work together at desks arranged in a circle — their excited voices echoing throughout the school. The first two floors house the demonstration school and the third floor holds a research facility looking at innovative learning practices and providing public policy recommendations.

Speaking in Bangkok at the university, Winters gave students and faculty members a closer look at the teaching practices and philosophy of Bing. She explained that our founding director, Edith Dowley, PhD, carefully planned the indoor and outdoor environments to be places where young children would have the freedom to make their own choices and develop initiative and independence. By valuing independence and creativity and offering children the freedom to explore the environment, Bing school mirrors our national identity, she explained. Teachers at Bing see students as unique individuals and give them opportunities to make decisions with materials, friends and adults. There is an inherent belief that each child is competent and capable of independently making choices and decisions. This was of great interest to the administrators and teachers of the demonstration school, who also held a philosophy of being child-centered, learning through play, focusing on individual children’s interest and abilities and encouraging intellectual curiosity and problem solving. Our discussion of cross-cultural implications in working with diverse groups of children highlighted the work of two Stanford psychologists: associate professor of psychology Jeanne Tsai, PhD, and professor of psychology Hazel Markus, PhD.

Conference participants were most interested in research done at Bing over its 48 year history. A major goal of the demonstration school and Educational Research and Development Institute is to conduct research on best educational practices and innovative learning while providing public policy recommendations to improve the standard and quality of education. Much like Bing, the demonstration school offers university students from around the world an opportunity to learn best practices and work with children and teachers in an educational setting.

After visiting Bing in early 2013, the demonstration school’s director, assistant professor Kittikoon Rungruang, PhD, had already incorporated some aspects of Bing’s programs into his school’s early childhood and kindergarten classes. Inspired by the environment at Bing, he adopted elements such as a woodworking table, a wooden outdoor play structure, blocks and sand. Rungruang and the other Thai visitors were impressed with Bing’s outdoor environment, the high-quality curriculum materials and the collaborative nature of the child-teacher and child-child interactions. The Thai school administrators noted the high skill level of the Bing teachers and how the children were deeply engaged in their play and work.

As we ended our three days in Thailand, a quote from Margaret Mead came to mind: “Never doubt that a small group of thoughtful, committed citizens can change the world. Indeed, it is the only thing that ever has.” To inspire and teach children in the best environment possible is certainly a goal worth working toward.
This year the American Educational Research Association took a step toward bridging the divide between those who do research on education and those who educate. The theme for the annual meeting of AERA was “The Power of Education Research for Innovation in Policy and Practice.” The four-day meeting took place April 3-7, 2014 in the expansive Philadelphia Conference Center, with over 14,000 attendees.

Former Bing teacher Colin Johnson and I presented at a poster session for studies on early childhood education. The poster, titled “Examining Self-Regulated Learning in Nursery School Play,” described our investigation of how self-regulated learning—the capacity to plan, guide and monitor one’s learning behavior—develops during everyday activities at Bing. For our study, we used a set of codes developed by David Whitebread, PhD, and his colleagues to categorize children’s activities during play.

Our study demonstrated how intentional and strategic children are while at play, even from a very young age. Monitoring, which involves active efforts to keep track of one’s progress or the effectiveness of one’s approach to a task, was the most common form of self-regulatory behavior. Making self-corrections and noticing errors were two common examples of monitoring. The frequency of self-regulated learning behaviors increased with age. We also examined children’s responses to teacher support. The younger children received more support from teachers than the older children did, however the older children were more responsive to that support.

We finished the study with the implications the analysis raised for our practice and for our perceptions of children’s play. Johnson and I were intrigued by how small changes in the environment, such as the placement of an activity facing the yard or the fence, potentially affect self-regulation. While facing toward the yard, a child repeatedly looked up from her activity to view what was going on before her. We also noted the teacher’s role in both promoting children’s focus on a task and also providing a source of distractions. The analysis process also heightened our attentiveness to the details of children’s everyday play activity.

Before the poster session, I attended a poignant tribute session to Elliot Eisner, PhD, the late Lee Jacks Professor of Education, Emeritus, at the Stanford Graduate School of Education and former AERA president. Eisner is renowned for the contributions he made to the examination of curriculum, instruction, assessment and the importance of the arts in education. He received numerous awards during his career.

I took two courses from Eisner as a Stanford undergraduate. The readings and discussion opened my eyes to a different way of seeing the world. After those courses I felt committed to focusing on education and psychology rather than a degree in specifically psychology.

Speakers highlighted the personal and professional qualities that made Eisner an exemplary scholar and educator. Lee Shulman, PhD, the Charles E. Ducommun Professor of Education, Emeritus, at the school of education, described Eisner’s passion for engaging in lively argument and voicing different perspectives while maintaining warm relationships. Eisner’s most enduring contribution, according to Shulman, is teaching others to use different lenses and foci. He encouraged himself and others to ask, “In what really different ways can we see the world that is familiar to us?” Acknowledging Eisner’s frustration with the educational research community, Shulman noted that Eisner chose to remain part of that world rather than remove himself. He continued to participate in educational scholarship as a critical voice, raising questions about trends in curriculum, assessment and learning.

Nel Noddings, PhD, the Lee Jacks Professor of Education, Emeritus, at the school of education, described Eisner as a scholar “ahead of his time” who years ago made criticisms and raised cautions that educators are now finding highly pertinent. Among them, he cautioned against getting so focused on defending one’s position on a problem that one does not move on to solving the problem. Eisner also pointed out in his writings that scholars often respond to challenges to their views as an attack, rather than an opportunity for self-reflection. Being presented with other views, according to Eisner, helps us to improve and refine our own thinking.

Eisner’s emphasis on the importance of valuing multiple approaches to representing experiences and ideas resonates with the opportunities at Bing for children to use a variety of open-ended materials. Through immersing themselves in use of materials, whether paint, blocks, clay, sand, water or other materials, children broaden their imagination and shape their understanding of the world.

Although I cleared my bookshelves of most texts from college long ago, I have held on to a few from his courses. They are a reminder of the need to challenge myself to see the world through more than one lens.

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**Visiting Quartet**

The Afiiara Quartet performed at story time at Bing in November 2013. They introduced dynamics and invited children to wave their hands up high when they heard loud sounds (forte) and to lower them when hearing soft sounds (piano).
Kindergarten Information Night: A Reminder to Live Like a 5-Year-Old and Enjoy the Here and Now

By Kate Frelinger, Teacher

The time has come. For this year’s 5-year-olds, the upcoming year means the significant transition to kindergarten.

To help make this change as smooth as possible, Bing holds an annual kindergarten information night. The purpose of the panel-led discussion, held Jan. 15 this year, was to prepare parents and families for the upcoming transition, shed light on the developmental progress of 5-year-olds heading to kindergarten and answer questions parents have about the process. This year’s panel consisted of pediatrician Rick Lloyd, MD, who works at Palo Alto Medical Foundation; Nixon Elementary School kindergarten teacher Jody Harrier; Santa Clara University professor and former Ohlone Elementary School principal Susan Charles; Walter Hayes Elementary School principal Mary Busman; as well as Bing staff members Todd Erickson, Peckie Peters and Jeanne Zuech.

Lloyd began the night with a brief overview of kindergarten-age development. “Five is about as good as it gets,” he said. Children at this age are eager to please, ready and excited to learn, can take on much more responsibility, are very family oriented and are beginning to develop their sense of humor. During this age, children also often experience a “significant leap in language, speech, communication and ability to focus.” Since 5-year-olds continue to work on discerning fantasy from reality, Lloyd encourages parents to resist being overly factual, and instead allow a little magic in their children’s lives. According to Lloyd, children at this age primarily live in the moment, with little thought to the past or future. While 5-year-olds may still be learning how to balance their intense desire to please with being truthful, Lloyd confirmed what many already expected: Five is a great age, and going into kindergarten is a very exciting time of growth.

As the night continued, the topic of conversation moved to making the transition to grade school as easy as possible. The panel assured parents that children are resilient and prepared for this type of change. In fact, one of the most important things families can do for their children as they move to elementary school is to offer support, help and model a positive attitude for their children. As Charles described, there is no need to put undue pressure on children when it comes to entering kindergarten. Each child is unique, has individual strengths and challenges, and therefore any comparisons between children are unnecessary and will ultimately lead to more stress for families and for children. In response to concerns parents expressed about whether their children were “ready for kindergarten,” all members of the panel had the same answer: If you believe in your children and create a supportive environment at home, kindergarten does not need to be stressful.

Busman, Charles and Harrier also described how getting to know the child’s new school might ease the transition. In addition to visiting the school, they suggested parents get their questions answered by calling the school, parents of children who attend the school, or even the PTA. However, because children at this age “live in the present,” as Bing head teacher Peters said, parents may want to wait to discuss kindergarten with their children until the transition approaches. “In some cases, [early discussions] can lead to misunderstandings,” said Peters. For instance, children might believe that going to kindergarten is an immediate change, rather than months away. However, attending events at the beginning of the school year and discussing the process gradually as the first day of school approaches will likely clarify their entry into kindergarten.

Bing teachers also assured parents their time spent in Bing has been preparing them for kindergarten. Our play-based program encourages children to learn strategies to enter play and connect with others, perspective-taking, empathy, autonomy, self-efficacy and ultimately a lifelong disposition for learning. In our classrooms, children develop gross- and fine-motor skills, and strengthen executive functioning skills and important behavioral skills like self-regulation. These essential skills, while not traditional academic skills such as reading, writing and arithmetic, allow children to be members of a classroom community and build the foundation for academic learning in the future.

Panel members also answered questions about the use of technology in kindergarten classrooms. If parents are worried about “technology abuse” in the form of staring at screens all day, they suggested setting an example for children. Adults should try to live in the moment: step away from screens and wait a little while before responding to that email. It also helps to spend quality time with children and begin routines of daily family dinners or reading bedtime stories together. As a former elementary school teacher in San Jose, I know how useful, stimulating and beneficial technology can be to a classroom environment. In many ways, it allows for increased specialization for each child’s academic needs. Although there are challenges to finding the balance between technology and traditional methods of teaching, technology is not the enemy.

The primary messages to take away from Bing’s kindergarten information night? Be positive. Support your child. Get to know the school. Most importantly, enjoy this exciting stage of a child’s life.

It’s me with Mr. Kitten and he’s not a real kitten. By David Gabriel D., 4 years 9 months
Bing Nursery School Performance Series

Bing Nursery School collaborated with the Stanford University Department of Music in launching the inaugural 2013-2014 season of the Bing Nursery School Performance Series.

The series featured three performances: *Peter and the Wolf*, presented by the Stanford Symphony Orchestra, the Fratello Marionettes and narrated by Helen Bing on Oct. 26, 2013; Music and Dance from Tibet, part of the Stanford Pan-Asian Music Festival, on Feb. 22, 2014; and *Wake Up, Clarinet!* featuring clarinetist and composer Oran Etkin and his music-education method, Timbalooloo, on April 19, 2014.

The series aims to introduce young children to the performing arts. These early experiences open children’s minds, expand their knowledge of different cultures through music and dance and set the stage for a lifelong appreciation of the arts.

The planning committee for the series consists of Jindong Cai, Bing alumni parent and conductor of the Stanford Symphony Orchestra; Jennifer Winters, director; Beth Wise, assistant director; and Chia-wa Yeh, head teacher and research coordinator.

The series is made possible in part by the support of the Jamie and Jeff Barnett family, the Agatha and Steve Luczo family and the Stein family.

Above: from left: Clarinetist and composer Oran Etkin and musicians perform *Wake Up, Clarinet!* Children explore the blue sousaphone after the concert.

Far left: Music and Dance from Tibet, part of the Stanford Pan-Asian Music Festival.
Left: Jindong Cai, Bing alumni parent, conductor of the Stanford Symphony Orchestra and artistic director of the music festival.

Above and right: *Peter and the Wolf* performance. Children take a close look at the marionettes after the concert and puppet show.

Photo not available online.
Bing Nursery School celebrated its 25th year of Harvest Moon auctions on Nov. 9, 2013, at the Stanford Arrillaga Alumni Center. This year’s theme was “BINGO: Celebrating the auction’s 25 Years on the Farm.” The annual fundraising event raised an amazing $450,000 for the Bing Scholarship Fund, which provides assistance to over 20 percent of the children who attend Bing. As in past years, Helen and Peter Bing were strong supporters, with a generous gift of $50,000.

The co-chairs for the 2013 event, Hays Hyre, Julia Popowitz and Stephanie Oshman, introduced new ways to raise funds. Among their innovations: an online auction (which raised $30,000); an outreach to businesses and families to become sponsors of the auction (raised $97,000); opportunities for businesses to place ads in the auction catalog (raised $20,000); and a Web-based donation form so donating items would be more convenient. They also expanded the Bing Photo Book, which not only included teachers’ photos but also featured families’ photos in exchange for their donations. The book, which will be a treasured keepsake for years to come, raised $15,000 for the Teacher Development Fund.

Guests were greeted with a “down on the farm” theme, complete with barns, hay and farm décor. A large barn mural was the stage backdrop and the auction tables were decorated with sunflowers in milk jugs, baskets full of fruit and cornucopia. Adding to the excitement of the event was the presence of 10 49ers cheerleaders, who were dressed as cowgirls and passed out cocktails. Bing invited leaders, who were dressed as cowgirls, to celebrate the event.

One highlight was the “Best of the Barnyard” category, which raised $35,000. This category featured one-of-a-kind items, such as the beautiful “Bing book crate” created by Bing carpenter Gene Aiken and teacher Jeanne Zuech and filled with books donated by the Bing teachers and staff. Other highlights were events, including a Chinese New Year dumpling party, children’s Valentine party, Alice in Wonderland tea party, Bing train ride, Bingo fiesta and a “Hoedown on the Farm” party (which together raised over $64,000); live auction items, including a 49ers package at the new 49ers stadium, courtside tickets to the Golden State Warriors, a performance by the Stanford Band and a “teacher tuck-in” by Bing’s own teacher Peckie Peters (together raised over $50,000). The tuck-in with Peters was so popular, three of this item were sold. We also auctioned over 50 different themed baskets, including “Under the Sea” and “Kids Can Cook,” which were created and assembled by parents in each of the classrooms. In total, over 600 items were up for sale.

In keeping with the theme, our auctioneers, Bing parent Nate Olmstead and Bing alumni parent Warren Packard, dressed in cowboy hats, boots, plaid shirts and jeans. They brought humor, energy and enthusiasm to the live auction. Bing teacher Todd Erickson was our DJ for the evening. Our newest Bing CD, The 25 Favorites, a compilation of songs from the previous six Bing CDs, debuted at the auction. All CDs were produced by Beth Wise, Bing’s assistant director.

We would like to express our heartfelt appreciation and thanks to the auction co-chairs for their tireless work. We are also extremely grateful to our parent volunteers—over 200 strong—who worked on over 20 committees. A special thanks to those who donated to the auction and to those who attended.

The tremendous dedication of our parents, Bing teachers and staff made the auction what it was—a tremendous success!

We look forward to seeing everyone again at this year’s auction, Bing2014 Auction Royale, on Saturday, Nov. 8, 2014.
On May 18, a beautiful, sunny Sunday, approximately 600 families attended the Bing Children’s Fair. At the annual event, children of all ages were excited to create their own treasure bags, test their skills on the challenge course, dig up a “dinosaur” at the scavenger hunt, or design their own cookie with icing. Cupcakes, brownies and sweets of all kinds were available at the bake sale, and nobody could pass up the delicious food.

Attendees were entertained by the Magical Moonshine Theatre puppet show, the Mariachi Cardenal de Stanford, the Ballet Folklórico de Stanford, and The Bing School Band, featuring many teachers, parents and assistant director, Beth Wise. As in past years, the incomparable Leland Stanford Junior University Marching Band closed the fair and was a huge hit with both children and adults.

Before the fair, approximately 200 alumni families joined the Bing staff at the alumni breakfast. It was wonderful to see and talk to so many alumni children and their parents, some of whom are Bing alumni themselves.

A special thanks goes out to our generous donors: Chaudha Family, Cheesecake Factory, Corner Bakery Café, Fraiche, fresh & easy, Gerry’s Cakes, GNT Group, Go Go Squeeze, Grocery Outlet bargain market, Kincao, Lutticken’s, Martha’s Pastries, Patxi’s Pizza, Pizza My Heart, Prolific Oven, Skip’s Place Pizza-Los Altos, Sprinkles Cupcakes, Susie Cakes, Task Rabbit, Tin Pot Creamery, Trader Joe’s-Town & Country, Vn Grill, and many Stanford sororities and fraternities.

We are also grateful to our Bing Fair co-chairs, Adriana Flores, Chris Shen and Sharon Shen, for organizing a beautiful fair, and to the more than 300 parent volunteers, who staffed the activity and food booths this year and many others who prepared goods for the bake sale and the international/American food booth. Proceeds benefit the Bing Nursery School Scholarship Fund.

—Reporting by Sandra Gedeon, Business Manager

Bing Children’s Fair Committee Chairs: Advanced Ticket Sales: Delney Bystrom • Ticket Sales at Alumni Breakfast: Rowena Chiu • Bake Sale: Cara Barone, Mariaelena Kaplan, Jeanne Tsai • Baseball Toss: Josue Figueroa • Challenge Course: Robyn Reiss • Cleanup: Ele Mamayek • Cookie Painting: Kristin Bosetti, Kathleen Cheplo • Donations: Adriana Flores, Tara Caranza • Duck Pond: Joanna Lin • Easel Painting: Fusun Ertemalp • Face Painting: Petia Kremen • Finance/Ticket Sales: Beatrice Chan • Fishing Hole: Krassi Harwell, Esther Levy • Frozen Fruit Bars: Jean Tang • Handprints: Kenny Lai • International/American Foods: Margarita Cohen, Cathy Sutherland • International/American Foods Kitchen: Ele Mamayek • Pizza Booth: Maryam Sheikh, Adam and Amy Tobin • Sand Castles: Melissa Valentine • Scavenger Hunt: Jennifer Yeh • Set-Up: Will Wu • Spirit Shop: Rose Lanham • Treasure Bags: Katherine Robinson • Volunteer Table: Alicia Seiger • Waterworks: Ayelet Lorberbaum • Wood Gluing: Anna Tamis

Free End-of-Year Family Concert

Justin Roberts and The Not Ready for Naptime Players performed in Center Room’s yard on June 2, 2014. This performance is generously supported by Jim Reese, Susannah Bernhart and family.
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2013-2014 Annual Fund Report

Thanks to the contributions of Bing parents, friends and our staff members, we met our goal of $400,000 to help support our annual budget. We’re deeply grateful for this generous support. We would like to extend a warm round of thanks to the parent fundraising chairs Marsa and David Fisch, Linda Liu and Gregory Lee, Marnie and Karol Marcin, Emmalyn and Art Shaw, Aileen Lee and Jason Stinson, and Debra and Eric Ver Ploeg; and our classroom ambassadors and their committee members for their efforts and support. In 2013-2014, the participation of our current Bing families reached 58 percent.

The annual fund is an important part of the school budget. It supports general school operations, scholarships and our endowment. The campaign helps us close the gap between tuition and the actual cost of delivering our exemplary programs. It supports staff development, additional assistant teachers in our classrooms, parent seminars, special events, outdoor play area renovations and high quality materials.

Our goal is for every family to participate in supporting the school—no gift is ever too small or too large. In 2014-2015, we will be striving for 100 percent participation! Please make your gift now at http://bing-school.stanford.edu/giving_annualfund.html.

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These monetary gifts support the Bing Nursery School Scholarship Fund

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SATURDAY, NOVEMBER 8, 2014 at 6:30 pm
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Celebrate this top secret mission with an evening of fine food, martinis and exciting auction items.

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If you would like to donate to this year’s auction, please contact us at harvestmoon@stanford.edu, or (650) 723-4865 or donate on-line at bingschool.stanford.edu/hm

From Bing With Love,
Your 2014 Harvest Moon Auction Co-chairs
Tara Carranza Chapman and Sanaz Khalili Malek

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