Director's Column: The Bing Institute Launched

By Jennifer Winters, Director

In July, Stanford University’s Bing Nursery School launched its Bing Institute for Excellence in Early Childhood Education. The mission of the institute is to share Bing’s philosophy, knowledge and experience with early childhood educators and professionals from across the country and around the world, and to address important issues in the education of young children.

In its 44 years, Bing has become a recognized leader in early childhood education, enabling significant research in the field and improving the lives of thousands of children and families. Every year, educators, researchers, government officials and dignitaries from around the world travel to Bing for tours and presentations. Leland and Jane Stanford founded the university to “promote the public welfare by exercising an influence on behalf of humanity and civilization.” In this founding spirit of social responsibility, the Bing Institute strengthens our commitment to sharing the work we do at Bing and extends our influence in the field of early childhood education.

From the beginning, Bing has had a three-fold mission: first, as a model for best practice in the field of early childhood with its play-based, child-centered programs for young children; second, as a laboratory for cutting-edge research in Stanford’s psychology department as well as linguistics and education; and finally, as a teaching ground for Stanford undergraduates, where courses are offered each quarter in psychology and human biology. Now, Bing adds a fourth mission. The creation of the Bing Institute allows us to take the next steps in extending our own knowledge and in sharing that knowledge in a much richer and more in-depth experience with early childhood professionals from around the world. By better examining and deepening our own understanding of how children learn, we can enrich our practice as well as share what we know with others.

This summer’s inaugural program included two week-long sessions, titled Developing Reflective Practice—Exploring Essential Elements of Quality Early Childhood Education. The 45 participants were immersed in an intensive experience with early childhood professionals from around the world. By better examining and deepening our own understanding of how children learn, we can enrich our practice as well as share what we know with others.

The institute is housed in the beautifully restored Tower House, adjacent to Bing. The Tower House is the oldest building on the university campus and had remained unused since being severely damaged in the 1989 earthquake. Through the generosity and involvement of Helen and Peter Bing and John and Gioia Arrillaga and their family, the Tower House was meticulously restored to enable the expanding educational programs at Bing. The Tower House was originally part of the Peter Coutts farm, which Coutts sold to Leland Stanford for the university in 1882. Before the farm was sold, the building was used as a schoolhouse for the children of Peter Coutts’ farm workers. In a June 2009 ceremony, Dean Richard Saller, PhD, dean of the School of Humanities and Sciences, honored the Bing and Arrillaga families with the dedication of the newly restored Tower House. It is only fitting that less
than one year after its dedication, the
Tower House is, once again, being used
in the service of education.

The Tower House is also the site of
undergraduate classes taught by the Bing
staff, including Psychology 60A, a guided
observation section for *Introduction to
Developmental Psychology,* Psychology
146, *Observation of Children,* Psychology
147, *Development of Early Childhood,*
and Human Biology 3Y, *Practicum in
Child Development*.

Participants in this summer’s inaugu-
ral programs included
the director and assistant
director of a
nursery school
in Hong Kong, a
founder and director
of over 150 nursery
schools in India, edu-
cators from Madrid
and Milan, and a
teacher from the
ministry of education
in Israel. Attendees
also included educa-
tors and directors
from New York,
Oregon, and Cali-
ifornia (with San Francisco, Shasta, San
Juan Capistrano, as well as Stanford,
Palo Alto and the surrounding communi-
ties represented), making for a diverse
group and an enriching experience.

I look to build upon this successful
launch of the Bing Institute. There is a
tremendous amount of early childhood
knowledge, wisdom and experience that
resides within our staff, and I look forward
to finding new ways to share this with
professionals in the field as well as with
the parents and families in the Bing com-

munity. I’m exploring the option of offer-
ing shorter programs throughout the year,
for example, a single day or a weekend
for educators as well as seminars and/or
presentations for the parents and families
of Bing children.

I’m very proud of the members of
Bing’s staff for their teamwork and dedi-
cation in coming together and creating
such a comprehensive inaugural program
for the Bing Institute. What our Bing
teachers and staff have accomplished in
such a short period of time is a real testa-
ment to their professionalism and their
dedication to the field of early childhood.
It is also extremely rewarding to see
how we’ve been able to reflect upon
and enrich our own practice, as well as
seeing the positive reactions to what
we’ve shared with others in these first
sessions at the institute. We have an
excellent foundation upon which to
expand and we look forward to the
many opportunities ahead.

**Excerpts of comments from Bing Institute participants:**

This week with the Institute has been the finest pause—to learn, to think, to make new
friends, to be challenged, to be inspired, and to be treated as an honored guest.

This has been the highlight of my professional life. Thank you so much for taking the
time to share your talents.

Thank you and good luck in helping to bring quality education to the next generations!!

It was all so inspiring to take in. The group learning experience and the rich discussions
were so beneficial for my self-reflection.

I have found the Bing Institute very nurturing and inspiring. All the presenters have
shown their professionalism and knowledge.

This has been a powerful experience for me, coming at the perfect time in my life and
career. I feel grateful for the care and time that was put into making this the best possi-
ble experience for us… You have created for us the kind of valuable experience that you
create every day for the children. Thank you for treating *me* as an honored guest!

Thank you! The Institute was well and efficiently presented. Staff were warm, thoughtful,
and astonishingly responsive to individual needs, requests, and feedback. The experience
of observing in the classrooms and seeing the set-ups was great. It’s rare to still feel as
enthusiastic at the end as at the start—great work.

**Huge** learning. The challenge is to implement all of this back home. But we will still try to
bring some changes.

The whole experience was fantastic! I appreciated the thought you put into planning and
carrying out each day. There was great variety of material covered. I learned a lot that I
will bring to my practice.

I think the biggest surprise was the quality of the presentation and presenters. Each one
used their gift. It was done in a comfortable environment where there were good discus-
sions, laughter, hands-on experiences, time for creativity. You made us feel welcome—in
a special way.
What Parents Can Learn From Preschool
By Christine VanDeVelde Luskin, Writer and Bing Alumni Parent

What is the most common word school children use to describe school? “Boring!”

And yet that’s not how children start out. Preschoolers are enthusiastic, confident, eager learners. So what happens? Why do children lose their joy of learning when they leave the playrooms of preschool?

In May, Deborah J. Stipek, PhD, the I. James Quillen Dean and Professor of Education presented the 2010 Distinguished Lecture—“What Parents Can Learn From Preschool”—addressing how and why most children lose the motivation to learn and what parents can do at home to maintain their children’s enthusiasm and self-confidence in the classroom.

The research is clear: Many children go from being avid learners to being diffident and indifferent students.

In studies where children took part in game-like activities where it was clear there was a performance outcome and were asked how well they thought they were going to do, very young children had high—bordering on unrealistic—expectations. Yet as they progress through school those expectations decline, and along with it, their enthusiasm.

The question Stipek and her colleagues have studied is whether these declines are inevitable, or are they a function of the educational environment?

In repeated studies, it has been shown that a young child’s high level of confidence, high expectations for success, and willingness to take on challenge can literally be beaten down by the classroom environment.

There are often stark changes from preschool through elementary school and beyond—from the physical environment to the way children interact. In a preschool—such as Bing, Stipek is careful to point out—children have choices about what they do. They spend most of their day engaging in activities that they choose, not activities that they are directed or have to perform.

There’s no penalty or consequence for taking on challenging tasks, says Stipek. There is no bad grade if a child can’t get the puzzle together, as long as he puts it away in the box and puts the box where it’s supposed to go on the right shelf. With no negative consequences, there’s no reason to avoid challenge.

In the preschool classroom, success is not defined as doing better than other children. It’s self-focused. It’s what can I do now that I couldn’t do before: tie my shoelaces, write my name, recognize some letters of the alphabet, draw a picture with lots of different colors. The child who is tying his shoes isn’t thinking, “Oh my gosh, two-thirds of the kids in this class were tying their shoes before I did.” They’re not making comparisons. So they take pride and feel mastery and accomplishment in learning to do things.

And finally, in preschool, Stipek says, children can work together. They can collaborate. They don’t have to worry about being accused of cheating. They learn about things in a social-collaborative way.

Think of Bing as your model—the diversity of experience, lots of opportunities, choice, focusing on mastery, working collaboratively.

However, in most classrooms after preschool and kindergarten, all the children in a class typically pursue the activity at the same time. This makes it easier for children to compare themselves to their peers. Their performance and what they know and understand become quite public. In the elementary school classroom, everyone knows who doesn’t know the answers and who always knows the answers, which can be tough on a child.

Another characteristic of classrooms as children advance in school is that the teacher is in control and there is little opportunity to choose an activity or task. “Think of the preschool classroom where one child is at the computer, another child is reading a book, and the third child is...
building with blocks,” says Stipek. “They were doing what they wanted to do. But past preschool, most kids spend most of their time doing what they’re told to do, and in fact in our research, when we ask kids, ‘Why are you doing this?’ they almost never tell us, ‘Because I’m learning…’ or ‘I’m learning how to …’ It’s always, ‘Because the teacher told me to.’”

So what are the consequences? They’re bored! They daydream. They become afraid to ask questions. They don’t want to reveal that they don’t understand or know the answer. They don’t ask for help and will sometimes go to amazing lengths to hide the fact that they don’t know or understand something. Not understanding the material and not knowing the answers, especially in settings that are quite public, is something they don’t want to admit.

Children will also pretend to be working when they’re not, according to Stipek. By looking busy, they don’t call attention to the fact that they don’t know what they’re doing. Or they will pretend like they didn’t try. Sometimes they actually don’t try. Most kids would rather be known as not trying than as dumb. And if you do do well, then you look like a genius, because you didn’t even study!

But none of these coping strategies help children learn. They get in the way of learning. That’s what happens in an educational environment where there’s a premium on getting everything “right,” instead of understanding and mastering a skill.

In addition, there’s the anxiety that is seen as early as first grade—stomachaches, crying about attending school, battles over homework. Stipek says in the past these symptoms usually occurred after third grade, but are now being seen as early as kindergarten. By high school, it becomes serious. Depression, anxiety disorders, sleeplessness, and other psychological problems are rampant.

So what can parents do to mitigate this powerful decline in children’s motivation as they progress through school?

Stipek’s prescription for how parents can help maintain their children’s self-confidence and enthusiasm for learning is “the three C’s”—competence, control, and connectedness. These are the three major ingredients of a motivating environment, whether it’s the home, school, a performance situation such as a sports team or dance class—or even in the adult workplace. “If any of these three ingredients are missing,” says Stipek, “I can guarantee that motivation will not be at its maximum.”

The first “C” is a sense of competence and confidence. “I say ‘competence’ and ‘confidence’ because competence doesn’t always bring confidence,” says Stipek. “In our research, for example, girls, on average, underrate their mathematical competencies. They do so from a very early age. So being competent doesn’t necessarily mean being confident.”

One of the key pieces of a sense of competence is the “just-right challenge.” If children do easy work all the time, that doesn’t give them a feeling of competence. They never get a sense of pride or mastery. “When the parent says, ‘Oh, my child is doing so well. She always gets A’s!’” says Stipek, “I say, ‘You better complain to the teacher, because if your child is always doing well, then he or she is not being challenged.’ They’re being denied the opportunity to feel a real sense of accomplishment. Many teachers and parents believe they need to protect children from failure. Well, get rid of the word ‘failure.’ It’s ‘haven’t figured it out yet.’”

In preschool, no one worries about failure. You just can’t do that puzzle—yet. But if you stick with it—maybe a week or a month later—you’ll be able to do it. Children should not have a steady diet of success. The competence or confidence that is built without being challenged is paper thin, and it erodes as soon as children are in a situation that isn’t easy for them. A robust self-confidence is built when children have plenty of opportunity to engage in activities that provide a little challenge, resulting in the experience of overcoming difficulty.

Parents should also focus on learning instead of performance. When a child comes home and tells you there was a social studies test, what is the first thing parents say? They ask, “How did you do?” That’s normal. But it doesn’t have to be the first thing asked. Because what that conveys to the child is that the only thing that matters is how he or she did. “You’re saying to them that you don’t care what they learned, what the topic was, whether it was relevant or interesting,” says Stipek.

This puts unnecessary pressure on children because learning is about exerting effort, developing skills, and moving in the right direction. And all children can do that. But if it’s performing better than their peers, only half the children can perform better than their peers.

“So make ‘How did you do?’ the fourth thing you ask!,” says Stipek. “Instead, ask them to tell you about the test, what was on it. ‘Oh, it was on the westward movement. Did you learn about the Oregon Trail? I remember learning about the Oregon Trail in fifth grade.’ Have a conversation about substance and content. And somewhere down the line, ask ‘How did you feel about how you did? Did you feel like you understood most of the stuff?’”

One of the things you can do as your children grow older is think, “Now,
what would a Bing School teacher do in this circumstance?" And I think you’ll find that there’s some wisdom there that you can apply at any age. The answer is to go back and look at the qualities of a preschool environment. What are the things that children are experiencing in preschool that we want to promote and support throughout our children’s lives?

The second “C” is a sense of control. People enjoy doing things when they feel they’re doing them because they want to, or choose to, as opposed to doing something because they feel they have to do it. You can take the very same activity and take away the enjoyment when you are told what to do, how to do it, and when to do it all day long. That’s what school is often like for kids, so don’t make your home that way.

For example, the natural reaction when children are not making wise decisions is to take away control, to clamp down. So when a child gets a bad grade, what does the parent do? They take away the Gameboy or football or TV. But remember, it’s motivating to choose—to feel like you’re doing something because you decided to do it. Instead of seizing control, problem-solve with your children. Engage them in the solution. Ask questions. Give them hints about what might be an acceptable solution.

It gives children a greater sense of control and ownership. Then there is a greater likelihood that they’ll follow through with the solution and children learn strategies for addressing problems.

The third “C” is a sense of connectedness. People don’t feel comfortable and aren’t motivated in situations where they feel excluded, disliked or marginalized. We’re much more likely to feel comfortable and engaged and interested when we feel like we’re valued for what we’re doing, that we’re cared about, that we’re liked.

When you want your child to pay attention to what you think, they’re going to be much more attentive if they feel like you’re their partner, rather than the enemy—the person who’s trying to control them and tell them what to do and make them do things that they may not want to do.

A lot of life is about asking the right question. The wonderment of the four-year-old, the desire to know and understand—“How does that work? Where does the moon go during the day?”—these are things we should cherish. You can model a love of inquiry in your home—ask questions, have conversations, consider the puzzle of where the moon goes, and discover the answers together. That’s the kind of home that is going to raise a child who is passionate about learning.

Remembering the challenges that children have in a preschool, the choices children have in preschool and the problem-solving that goes on in preschool is a very good model for parenting. It’s also a way to counteract some of the negative effects that seem inevitable even in the very best of schools as children begin to be concerned about their performance. If our homes can be made more like preschool, children will be healthier, happier, take joy in learning, and continue to have confidence and high expectations for success—just as Bing preschoolers do.

The I. James Quillen Dean and Professor of Education at Stanford University, Deborah J. Stipek joined the Stanford School of Education in 2001. Her scholarship concerns instructional effects on children’s achievement, motivation, and early childhood education. A member of the National Academy of Education, she is the author of two books on motivation—Motivating Minds: Raising Children to Love Learning, written for parents and Motivation to Learn: Integrating Theory and Practice for teachers. She previously was on the faculty at UCLA for 23 years where she served as director of the Corinne Seeds University Elementary School and the Urban Education Studies Center. Her doctorate is from Yale University in developmental psychology.

State and International Educators Visit Bing

From left: More than 20 directors of preschools from Santa Cruz county toured Bing Nursery School this April. Bing staff members pictured are Jennifer Winters, director (back row, second from left), Beth Wise, assistant director (back row, third from left), Chia-wa Yeh, head teacher (middle row, far left), Karen Robinette, head teacher (middle row, second from left), and Beverley Hartman, head teacher (back row, far right). Eleven administrators and educators from the Poppins Nursery School in Japan visited Bing in November 2009. Among those pictured here are Noriko Nakamura, president of Poppins Corporation (back row, third from left), and Bing’s Jennifer Winters (back row, second from left), Beth Wise (back row, fourth from left), and Chia-wa Yeh (back row, fifth from left).
Jelena Obradović on Resilience in Early Childhood
By Stephanie Swenson, Assistant Teacher

Generally speaking, children who experience more adversity are more likely to have problems later. But some children don’t follow these trends. One of Stanford’s new faculty members, Jelena Obradović, PhD, explores why some children who face adversity come through relatively unscathed.

“What are these systems that are allowing children to show high levels of functioning despite risk and adversity while other kids falter or have problems?” asked Obradović, an assistant professor of education and faculty advisor for the Child and Adolescent Development program. Obradović, who joined the Stanford faculty in 2009, delivered a guest lecture during Bing’s winter staff development day, February 16, 2010. She spoke on adaptive functioning in the context of adversity.

There are two adaptive systems, Obradović explained, that determine how humans react to novel situations and changes in their environment. These two systems, the stress-response system and the self-regulation system, affect how children react to adversity, and thus can help explain how resilience develops. During her talk, Obradović highlighted two of her studies: The first study focused on the stress-response system and the second on self-regulation.

Obradović explained that studying stress response is important because it helps us understand why some children are just more susceptible to environmental influences and why others are less susceptible. Further, she asked, could there be a biological reason children respond differently in different contexts?

For many years, researchers explained behavior with a stress-diathesis model. This model predicts that children who are highly reactive to stress and have a high level of adversity are going to fair worse and have far more problems in life than those with low stress reactivity. But this model does not account for children who have high stress reactivity but do not experience much adversity, said Obradović. Nor does it explain resilient children who have high levels of adversity but develop little to no behavioral problems.

Obradović then set out to test a new model, proposed by psychologists W. Thomas Boyce, MD, and Bruce Ellis, PhD, (published in Development and Psychopathology in 2005) that suggested instead of the stress-diathesis model, there simply might be children who are just more sensitive to context; children who are more affected by environment, regardless of quality. In a study of 338 children in the East Bay, kindergarteners’ stress reactivity was measured in a variety of age-appropriate tasks. Obradović and her colleagues then tested whether the reactivity interacted with a child’s family environment to predict how well the child was doing in kindergarten, as reported by the teachers, parents, and children themselves. Their study suggested strong support for reframing stress reactivity as biological sensitivity to context, meaning that some children’s behavior is strongly affected by their environment, whether positive or negative. This is relevant to Bing teachers, said Obradović, because it highlights how Bing’s positive environment can help with future school success, especially in biologically reactive children who are highly sensitive to context.

In her second study, Obradović tested the self-regulation system, a child’s ability to regulate his own emotion, behavior and more. Defining effortful control as the ability to shift control/attention and inhibit certain behaviors, Obradović explained that this ability to regulate behavior and attention underlies many age-salient domains, such as social competence and academic performance. Obradović’s study demonstrated that effortful control was an important marker of early school success in homeless children. This suggests, she argued, that good self-control in young children who are faced with adverse situations predicts success in a variety of areas, including academic performance, social competence and non-aggressive behavior. Because children can be trained to have better effortful control, Obradović’s results are significant because it suggests that simply helping children with their effortful control can have a broad impact in a variety of seemingly separate areas in which they might be struggling.

Concluding her talk, Obradović spoke about the options for expanding her research here at Stanford and her excitement in having joined the university. She then answered questions from the Bing staff members, who were very interested in how applicable her research was to them. The staff thoroughly appreciated learning more about cutting-edge research in the field of early childhood education and development.
At Bing’s 2009 fall staff development day, teachers and staff learned about how social belonging affects motivation from a leading researcher on the topic, Gregory Walton, PhD, assistant professor of psychology at Stanford, spoke about his research on social belonging and achievement motivation at the October 10, 2009, workshop.

Walton is interested in the notion of social identity: people’s sense of their connections and relationships to others, and the social groups with which they identify themselves. He believes that social identity is a powerful source of motivation, especially as it influences achievement. He also posits that people’s interest, engagement and motivation derive from their social identity. For example, people are often motivated to go to work when they may not be feeling well, primarily because of their affiliation with their work community. Membership in a social group appears to greatly influence persistence in pursuing tasks and goals that are seen as important to the group.

Walton believes that the desire to be connected to others is adaptive: Goals cannot be accomplished alone, but only within a collective of people. People in social groups develop shared motivations that might not even be noticeable to them. Their shared interests and goals affirm social relationships and solidify membership in their community.

Walton’s research has been looking at how even small social cues might have an impact on social motivation.

Past research on motivation has emphasized the role of individuals' perceptions of their abilities and autonomy. However, Walton believes that social context provides important information about a person’s identity and helps define these perceptions. A reason social belonging might help motivation is that people tend to develop their interests and motivation collectively with others. For example, simply participating in a task with others may lead to an individual’s increased interest and engagement with the task.

Walton’s research focuses on three areas of social motivation: mere belonging, sociality and motivation, and group differences in academic achievement. While most of his research has been with college-age subjects, he began work at Bing this past winter, looking at the effects of social motivation with young children and focusing on mere belonging and sociality.

The question posed in looking at the notion of “mere belonging” is whether minimal social connections to others engaged in an achievement domain increase individual motivation. In one study Walton has conducted in this area, college students were shown a newspaper article highlighting a former math major at their school. The only variable manipulated in this study was that of the math major’s birth date published in the article; in the experimental group, the date matched the participants’, in the control group, it did not. Those who were told that they shared a common birthday persisted 60 percent longer when presented with an insoluble math puzzle. In addition, these students also reported greater interest in the math department and their sense of potential “fit” for themselves in that department. Even this very arbitrary social link with another person seemed to have a positive effect on a person’s motivation.

In a related study, another way of creating social linkage was examined. College students were arbitrarily identified by the researchers as either being a “numbers person” or as a member of a “numbers group” and then given an insoluble math puzzle. In this “minimal group” study, the students who were identified as belonging to the group persisted at the task for 50 percent longer than those who were given an individual identity. Though the assignment as part of a group or as an individual was not tied to actual math ability, the social link seemed to affect motivation.

Walton’s “mere belonging” research is currently being investigated at Bing by Allison Master, a graduate student in Stanford’s psychology department. Her study compares interest in doing a task as an individual to doing a task as a member of the group. In this study, children are presented with a challenging puzzle to complete. Some children are told that they are part of a group of other children working on the same task, and will wear a group T-shirt while completing the puzzle. Other children are told that they are working as an individual and wear an individual T-shirt. A third group simply works on the puzzle with no specific instructions. The researchers will measure how long children choose to persist at the task and how much they appear to enjoy it. Preliminary data indicate that the children assigned the group identity persist at the task longer than those working as individuals or those with no instructions.

In a series of related studies conducted with Stanford graduate student Priyanka Carr, Walton investigated if the sense of working together with others in a task would increase motivation. In these studies, college students were assigned individual tasks to work on as their sense of belonging to a social group was manipulated. While attempting to complete a challenging puzzle, a note was given to the students providing some helpful hint. This note was identified as coming either from another student participant or from the researcher, that is,
either someone who was perceived as engaged in same task or someone who knew about the task but was not participating in the shared goal. Findings indicated that the students who felt that they were working together with others persisted longer at the task. In addition, these students also tended to underestimate the amount of time that they were working on the task, which was seen as an indicator of their enjoyment of the task. Participants also felt less tired and made fewer mistakes in the psychologically “together” condition.

Similar sociality studies are being conducted at Bing by psychology graduate student Lucas Butler. These studies look at how the feeling of “working together” affects young children’s motivation to participate in a task. In these studies, Butler presents children with a difficult puzzle to complete. Some children work on this task alone, but other children are given a sense that they are working with others together at the same task. This sense of social connection is conveyed through pictures or videos of other children working on the same puzzle. Butler assesses children’s motivation on a task by measuring how long they persist in working on the puzzle. Preliminary data from this study indicate that the notion of working together at a task leads children to be more motivated and to persist longer on average. Walton’s research into social connectedness and motivation research demonstrates that a person’s individual interests and motivation are inextricably woven into a social context. Those things that one identifies as personal interests and motivations and the things that bring pleasure and joy are derived from a sense of belonging to communities that share common interests, goals and aspirations.

Researcher in Profile: Lucas Butler

By Chia-wa Yeh, Head Teacher and Research Coordinator

How do demonstrations of how something works influence young children’s expectations about how things will work in the future? Does giving children cues about what to pay attention to help them more readily discern the importance of the information? These are some of the research questions Stanford psychology graduate student Lucas Butler and his advisor, psychology professor Ellen Markman, PhD, have been investigating at Bing Nursery School over the past three years.

Research is an integral part of Bing, which serves as a research laboratory for the university and its psychology department. It was the site of 19 studies in the past year.

Butler is a frequent presence in the classrooms interacting with children, often reading books to them or respectfully listening and talking to children about their work. Hundreds of children have participated in his studies.

Butler grew up in Lexington, Mass., a suburb of Boston. He graduated from Harvard University with a bachelor’s degree in developmental psychology. While at Harvard, Butler worked for three-and-a-half years as a research assistant with professor Susan Carey, PhD, studying the cognitive development of one- and one-and-a-half-year-olds.

Wearing wire-rimmed glasses and with manners that seem ready to strike up a conversation at any time, Butler is congenial and articulate. (He had an eight-month stint working as a barista at Peet’s Coffee and thoroughly enjoyed talking to hundreds of customers each day.) Recently married in May, Butler and his wife Dora, whom he met as a fellow research assistant back at Harvard, enjoy cooking and experimenting with different recipes. Bing staff often spot them shopping for ingredients at local farmers’ markets.

The research question Butler is investigating with Markman is how children make inferences about information and, more important, how the social context in which such information is presented influences how children think about the information. In addition, Butler looks at the effect of social connection on motivation in young children with psychology professor Gregory Walton, PhD.

Butler acknowledges that the type of basic cognitive development studies he conducts are unlikely to have direct applications to raising or teaching children. But they do inform parents and teachers about how children learn and what influences how children think. “I really care about the potential impact of our research, but in the end parents and teachers are the ones who know their children well enough to see how they might be able to apply our findings in the home or classroom,” he said.

Guiding by Asking Questions

In these studies, Butler and Markman investigated children’s abilities to learn about cause and effect (e.g., certain animals make a puppet laugh). Specifically, they looked at how adults might facilitate this kind of reasoning by simply asking a causal question (e.g., “Can you help me figure out what makes Lion [a hand puppet] laugh?”). The researchers found that when they presented children with a simple scenario with only two kinds of animals that they could quite readily figure out which of two animals made the puppet laugh, regardless of whether the researchers had primed the children with a causal question at the start. To make the scenario more similar to what real-life situations might be like, the researchers made the context slightly more complex: They had the puppet clean up his room by picking up a larger number of items and a greater variety of different kinds of animals and objects. With this set-up, the researchers found that children were only able to make the correct causal inference when the researchers had previously asked them whether they could help the researchers figure out the causal problem.

These results suggest that parents and teachers may play an important role in children’s causal learning, and that something as simple as asking children to help figure out a problem may greatly facilitate their causal reasoning abilities. “There are opportunities in children’s everyday lives to just ask questions to

A big house. By Faye C., 3 years 10 months
Pique their curiosity about certain things. And that may be enough,” said Butler. For example, imagine something unusual happens while an adult and a child walk down the street together. The child may notice it but may not wonder about what’s going on. But he/she would take more of an interest if the adult says, “I wonder why that happened?” or “Why do you think that happened?”

Pedagogical Cues and Children’s Exploration: The Power of Demonstration

The second series of studies Butler conducted at Bing is about pedagogical cues and children’s exploration. The researchers investigate how the act of explicitly demonstrating information for children impacts the inferences they make about that information. Butler and Markman hypothesized children might infer that information that is explicitly demonstrated is more important and more generalizable than that produced accidentally.

To test this, Butler and his research assistants first taught children a novel label (“blicket”) for a novel object, shaped like a small rectangular block in this case. In the teaching condition, researchers got children’s attention by saying, “Look, watch this” while explicitly demonstrating that the blicket was magnetic by picking up paperclips. In the non-teaching condition, researchers acted out an accidental dropping of the blicket on the paperclips and picked up the blicket with paperclips attached to it. Finally, researchers presented children with an additional set of 10 non-magnetic blickets to play with.

Butler and Markman used the intensity of children’s exploration as a measure of their implicit reasoning. They asked: When the researchers intentionally teach children property information about an object (for instance, that a blicket is magnetic), do they raise children’s expectations that other objects of the same kind will have the same property? Butler and Markman hypothesized that if children were surprised that the other blickets were not magnetic, they would spend more time exploring them and trying to get them to work.

Butler and Markman found that children are highly attuned to whether something is taught explicitly, and that this perception guides their assessment of how generalizable the information is. When researchers had explicitly demonstrated that the blickets were magnetic, children were quite surprised that the other blickets were not magnetic, and spent a great deal of time and effort trying to get the other blickets to work. However, when children witnessed the magnetic action only when the researcher “accidentally” dropped the blicket on the paperclips, they were much more accepting of the fact that the other blickets were not magnetic, spending less time exploring them. A follow-up study showed that even when children saw a researcher intentionally use the blicket to pick up paperclips, if the researcher did not appear to be explicitly teaching them, they formed less of an expectation that other blickets should share the property.

“Children are really sensitive to the cues adults give them about the importance or relevance of information that’s out there in the world.” Butler said. “I think that children learn a lot through exploration, but having something demonstrated in a particular way and letting children explore may be an interesting combination of strategies for facilitating children’s learning and guiding their exploration in particular ways.”

Social Connection and Motivation in Young Children

Butler’s third series of studies are with professor Gregory Walton on social connection and motivation. Research shows that sharing intention and sharing a goal is motivating. What Butler and Walton are interested in examining is if it is true for young children as well when the situation is presented in a minimal way. [See page 7 for more information on Walton’s work.]

In the studies, Butler and Walton investigated whether giving children the sense that they are working together with another child on a difficult task would increase their motivation and persistence. In the game room, researchers showed children a one-minute video of another child working on a puzzle. In the non-social condition, researchers told children that this was from a different day, when the other child worked on the puzzle. In the social condition, researchers told children that this was a video of a child who was in another game room right now, working on the puzzle, and that they were working on it together. After seeing the child put in one piece, children were then presented with the identical difficult puzzle, and invited to work on it as long as they liked, up to 10 minutes.

Butler and Walton found that when children had the sense that they were working together with the other child—even when they were not actively engaged in the activity together—they were more persistent, spending over a minute longer trying to finish the puzzle. This suggests children are motivated by the sense that they are engaged in a joint activity.

Inspirations from Bing

Bing provides ample examples and food for thought for Butler. “The kind of questions I’m interested in echoes the approach at Bing” he said. Over the past three years, Butler has spent a great deal of time in the Bing classrooms. He observed closely how teachers ask children questions, demonstrate for children, provide scaffolding/support for children and then let children take the lead and figure things out.

“What the teachers do is really subtle. They are not directing the children but guiding them in a way. Even children who are initially tentative become more comfortable and creative once they realize they have the teachers’ support to help them figure things out, but they also have the freedom to explore and play.” He acknowledges that the approach at Bing often inspires what he does. “It makes me think, ‘That’s such a cool approach. What is it about that approach that seems to work with children?’ It’s interesting to think about why that works and how that works.”
On February 10, Bing hosted its annual “Parent Seminar.” At this year’s parent seminar, the presentation focused on talking with young children. Bing teachers offered ideas about communicating effectively, guiding children’s behavior, talking with children about their work and assisting children in their peer interactions.

The event is designed to share the school’s philosophies and teaching methods, and to inspire parents to take some of the ideas home. This year nearly 80 parents took part.

Promoting Effective Communication
Stephanie Holson started by speaking about communicating effectively. She stressed the importance of getting down to children’s level physically and making eye contact. “It lets your child know you’re interested in what they’re saying, and it models how to engage in conversation with others,” said Holson.

In addition to being listened to, children need opportunities to express themselves. Asking open-ended questions, rather than yes or no questions, encourages this because children have the chance to reflect upon, and express their thoughts. Parents can also guide their children by using positive statements rather than negative ones. Asking a child, “Please walk,” rather than telling them, “Don’t run,” gives them useful feedback. “They may not know what the appropriate action is, so by telling them what they should be doing, you’re actually helping them learn what they can do,” said Holson. When possible, give children a reason for your request. Even though they may not like the reason, at least they’ll know there is one.

All children, especially those just starting to speak, benefit from having their actions narrated back to them as they play. This allows them to make sense of their movements and gives them the opportunity to link their actions to language.

Holson also pointed out the importance of modeling appropriate grammar, rather than correcting a child’s mistakes. For example when a child says she “’goed’ to find a book,” adults could respond by saying, “Oh, you went to find a book.”

It’s also helpful to rephrase what children have said to clarify their meaning. This keeps conversations on track and signals that adults are interested in what they are saying. Holson proposed using dinnertime to practice the give and take of conversation. This gives children repeated opportunities to learn how to listen and to be heard.

Guiding Children’s Behavior
Adrienne Lomangino added a perspective on children voicing their ideas and thoughts.

“Young children don’t have a lot of control over their lives,” said Lomangino. “It’s important to think about ways we can give them a sense of control.” One way is to communicate plans to children before they’re carried out. If a day is likely to include a potentially difficult event, tell children so they know what to expect.

When speaking to children, understand the difference between a question and a statement. Asking children if they are ready for bed is different from telling them it’s bedtime. If you ask them, they may tell you that they are not ready, so if you need them to go to bed tell them it’s time to do so. If this creates a problem, give them a choice. Let them know that if they are not ready now they can wait five more minutes.

Giving children limited, appropriate and feasible choices helps them feel a greater sense of control. “Children are easily overwhelmed with too many choices. Just giving them two, maybe three, choices is a good amount they can focus on,” she explained.

Lomangino recognized the difficulty parents sometimes have with limit setting. However, when children are unable to get what they want they have an opportunity to develop coping skills and resiliency.

When children don’t like a boundary, it’s helpful to recognize their feelings, but make sure to remain firm about what it is that’s not OK. Tell them succinctly why...
you are establishing a boundary.

When it’s necessary, be ready to follow through with appropriate consequences. These should be timely, related to the situation and feasible. For instance, if a child is throwing sand after being asked to keep the sand on the ground, it may be time to redirect the child to another activity.

Lomangino encouraged reflecting on these instances and being open to revisiting the decisions later. “Think about these situations as learning opportunities for your child and for you,” she said.

“You’re helping your child learn what it means to be a part of this community or family. You’re also learning a lot about yourself while interacting with your child.”

**Talking With Children About Their Work**

Lars Gustafson discussed the ways parents can encourage meaningful two-way communication with children who are working.

One effective strategy is to highlight the process as well as the product. “It gives children the idea that you’re invested in their work, that what they’re doing and how they’re doing it is very valuable to you,” he said. Ask open-ended questions about children’s art work. Point out the colors and features within. Open up a dialogue and promote children’s understanding of the connection between their effort and their accomplishment.

“Every material and every action has an inherent language. Try to utilize that language,” Gustafson said. When talking about painting, point out the brush strokes and balance of the image on paper. When a child is solving a puzzle, talk about the shapes and images on the pieces, he said.

Children’s creations aren’t necessarily representational. Children move through developmental stages in their work—in the earlier stages, they might simply be exploring the qualities of the medium.

Gustafson emphasized the importance of being surprised by children and delighting in their growth. They benefit when adults let them know they value their progress, he said.

**Talking About Interactions With Others**

Mark Mabry relayed his thoughts on the difficulties children might encounter as they learn how to interact with their peers.

As children grow, they become more interested in each other but they might not have a good repertoire of strategies for interacting. It’s up to adults to understand what their needs are and to help them interpret the world.

Yet it’s often hard to know when to help manage this process rather than stepping back and letting a child take the lead.

Strategies can vary among children of different ages, temperaments, moods and many other factors. Social learning is a process, and as a result, parents might revisit certain scenarios repeatedly before their child is able to navigate the situation independently. “Eventually they get there,” Mabry said.

When children are upset and need parents’ help working through conflict, it helps for parents to promote a positive outlook. “You want to be an advocate for your child, while at same time you want to help them feel like they can make this better,” he said.

Modeling a scenario, like asking someone to “please pass the pencil,” shows children the appropriate language they can use on their own. “It’s those little things they’re looking to you for that will actually tell them something about the social world,” said Mabry.

**Parent Questions**

The evening concluded with a question and answer session.

One parent asked how to better understand his child when her articulation is unclear. The teachers assured him that this was a common occurrence, especially with younger children. They offered the idea of encouraging her to say more. This lets the child know that you’re interested in what she’s saying, and gives the listener more language from which to discern meaning.

Another parent wondered how to support his child when the child asserts something is true when it’s not. The teachers described this situation as a good opportunity to find a reference book and explore the answer together. Chances are he will enjoy the time he spends searching with his parent, and he will learn to rely upon books for information.

Several parents wanted to know how they could help their children persevere through perfectionism. The teachers underscored the importance of recognizing the child’s feelings and frustrations, and telling the child you appreciate how hard they’re working. Assure them you want to help, and try to lighten up the situation with humor. If they’re still upset and can’t find a solution, it might be appropriate to take a break from the activity and return to it later.

What to do when a child acts out physically due to frustration? Create meaningful consequences that teach a lesson. If a child is throwing toys, put them away. If a child is hitting her mother, tell her it’s not OK, and redirect her until she’s able to regain her self-control. Is it appropriate to give children a timeout? It might be: The main goal should be to give them time to calm down. Parents know their child best and know what works and what doesn’t.

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**St. Lawrence String Quartet Plays at Bing**

St. Lawrence String Quartet played for the children this March. The quartet played music in different tempos (fast and slow) and volumes (loud and quiet), evoking a range of feelings in the children, who “danced” with their fingers, as if conducting, as they listened to a piece by Mendelssohn. The quartet played compositions by Beethoven and Haydn as well. Viola player Lesley Robertson, far right, is a Bing parent as is violinist Geoff Nutall, second from left.
Music is Key for Two-Year-Olds
By Kitti Pecka, Head Teacher

Music is by far one of the most important elements of the curriculum in the preschool years. Music supports the social and emotional growth of the two-year-olds, in particular, because it is inclusive of all types of learners and meets them at their level of development. It is especially useful in the acquisition of language and helps children coordinate their movement. Music attracts children and encourages community without pressure to perform.

Children at age two are eager to be in the company of their peers. Beginning school provides this opportunity along with many possibilities for group activities. Some children are ready for the challenges of a community of sharing. Others need a model for interaction. There are many means of advancing group dynamics, and music helps by including everyone. Whether playing together in a small group or meeting together as a whole, we use the familiar melodies of childhood to inform, to capture the imagination and to guide movement.

On most days, small groups can be found in the sand working hard to make cakes. Kelly, Evan and Mateo were making cakes for a sibling when we found “candles” (small sticks fallen from trees) to count and placed them carefully in the sand confection. The teacher’s suggestion to sing brought everyone together around one cake singing Happy Birthday to Ryan, Kelly’s brother. Of course, Rea and Logan also wanted songs sung and then each child made more cakes until eventually the entire family was feted. During these moments when they worked together, they helped each other and sang together. Jack, Avani and Tati became a part of the group, joining the bakers in their creative task. The following week, teacher Liz Prives added Patty Cake to her list of songs for story time so that eventually the entire group of Tuesday-Thursday Afternoon Two’s joined in this baking theme with movement and song.

Liz also included visual accompaniment for her music. She used the first letter of the children’s name to indicate for whom the cake was “put in the oven.” Including a visual representation for our music involves another area of the brain, which helps children learn. Music is an aural and kinesthetic activity and the addition of props connects to our visual learners. Pre-reading skills are a natural outcome of music time and story time when teacher Betsy Koning uses her skills to illustrate Shoo Fly and Down By the Bay. Children can use these illustrations as a model for their own creations at the easel or art table with an accompaniment of singing solo, duets or trios.

The kinesthetic part of music is extended through the use of many materials in the classroom but perhaps most effectively with percussion instruments. Matthew and Page were captured in large body movement as they played the drums to Rain, Rain Go Away. They imitated a quiet pitter-patter of drops using their fingertips, then rubbed the surface of the drum to make wind, pounded loudly to indicate thunder and then rhythmically to continue the storm as we all sang together. These drum activities continued at the water table when “drums” were constructed out of bowls and were struck with spoons.

These are a few examples of how music coordinates and furthers learning. It’s inclusive and promotes collaboration. Deborah Stipek, dean of the School of Education at Stanford, said at our Distinguished Lecturer presentation this year that it is essential to motivate learning by emphasizing a child’s competence. By highlighting a child’s strengths we build confidence and therefore increase participation.

Children need to feel a sense of belonging and connection to the group. Giving children control over the contributions they make allows them independence, which Stipek suggested is important to motivation. [See pages 3-5 for more information.] Music provides opportunities to acquire all these attributes in a preschool curriculum and becomes the key to opening their minds to learning.
Children in West AM Caring for the Environment

By Peckie Peters, Head Teacher

Children in our classroom have always had ideas about the environment, recycling and caring for the earth. Nico expressed his love for whales back in September and was eager to share his knowledge of them. He was outraged when he found in a book that tons of garbage are dumped in the ocean each year, hurting many living things. Sawyer organizes chairs in rows, each of them representing a rubbish bin. Then he comes by to pick up the garbage, carefully tipping each chair and setting it back down on its four legs before he moves onto the next one. He knows that garbage trucks are green and recycling trucks are blue and that they pick up different items. Azeneth has gardened with her dad since she was three. She tells stories about planting, tending, watering and then eating the fruits and vegetables that grew. In West AM, this shared interest in the environment evolved into a classroom culture where children show their commitment to caring for it.

In mid-fall, we started a compost bin in our yard next to the gardening boxes. Teachers thought composting would appeal to children because of their love of gardening and being out-of-doors, and it would give them hands-on experience taking care of the environment. Additionally, we hoped to expose children to the scientific process of composting, which would provide an opportunity to observe, question, predict and construct knowledge. This kind of experience promotes critical and creative thinking, the ability to take a concept apart and to look at it differently, which helps children to develop a higher level of thinking. At that time, many teachers saw this endeavor as something we might do for several months until children’s interest dissipated. That didn’t happen.

We began by adding two wicker baskets to our classroom to be used exclusively for transporting compostable items out to the compost bins. After snack time, a teacher used the baskets to collect fruits and vegetables from each table and invited children to come outside to help prepare them for the compost bin. The baskets were heavy, full of the snack time content. Within days, children were assuming this job by using carts or a friend to lighten the load if they needed it. Children cut fruit into smaller pieces so it would compost more easily. Dumping the cut-pieces into the black compost containers enabled children to see how much food would have gone into the garbage had we not intercepted it. The containers filled quickly and we had to figure out a system for turning the contents as needed for the chemical process to occur. The pungent mess was heavy and not so attractive to children (or many adults) at first. However, as the magic of compost began to occur, our attitudes shifted. One teacher built a large screen so children could help separate the rich, dark soil from the decaying items. The chickens loved hunting for worms in the compost and so did the children. Turning and sifting the dirt (which needs to be done several times a week) was less desirable, but still had a small and faithful following. Oliver was one of those children and frequently announced that he plans to be a gardener when he grows up. Collecting food items became an automatic task and while many children took a turn, Eddie, Jack, Alex and Sawyer assumed the job with regularity. Snack groups instituted systems for sorting items: one plate for garbage, one for compost and one for recycling.

In December, several children became interested in the book Earth by Susanna van Rose, a non-fiction book with detailed information and a combination of illustrations and photographs. This got teachers wondering what information children already had about the planet they were working to protect and nurture through composting. Building models of the planet seemed like a concrete way to explore the abstract concept of the “Earth,” in that it let children investigate in a hands-on context. Teachers inquired as to what information children already had about the earth and particularly if children had a sense that the earth consisted of land masses and water. We thought it made sense to begin there and decided to use papier-mâché to construct our own globes. Children loved the construction process, then waited days for the soggy masses to dry enough so we could paint them.

How could teachers further support learning about the environment and caring for it? Children had information, theories and interest. Composting was now an integral part of our classroom, and children were invested in the process. We decided to build on this interest by helping children understand that there are many ways they can care for the environment. We Just Call It Garbage, a song that was introduced at story time, was an impetus for helping children think about their role. The theme of the song is that many things that we think of as garbage can actually be used for something else if we just look at them differently. The lyrics explain: “We just call it garbage when we don’t know what to do with it.” Children embraced this concept wholeheartedly and began to challenge each other to find other uses for things. “I can make a boat out of that milk carton,” announced Brock at snack time. “Can I keep that?” Cullen looked at him with admiration and asked, “Can I do that too? Will you show me?” Egg cartons became painted works of art. Paper tubes were transformed into musical instruments. The excitement children felt was visible and audible as you moved throughout the classroom. “Don’t throw that out. We can use it for something else!” “I could use that for my art project.” “I brought these from my house in case someone needs to...
use them again.” A broken toaster became “Hads,” a classroom robot inspired and constructed by Will and a team of peers. It was crafted entirely of recycled materials and highlighted children’s ingenuity.

Interest broadened when we shared books like Michael Recycle, a story about a young superhero who teaches his community the value of recycling, and sang songs like Reduce, Reuse, Recycle, a sing-song chant expressing how easy and important it is to use less, use again and use differently. Children continued to play, explore and experiment with concepts of composting, recycling and garbage. They observed, investigated and asked questions about the composting process. (How does our food turn into good dirt for our garden? Why does it get hot? What are the worms doing?) They formulated their own ideas about what it means to recycle. (After passing out plates to all the children at his snack table, Banks passed the extra ones back to the teacher and said: “We don’t need to recycle these. We didn’t use them really. Put them somewhere so we can use them next time.”) They found new ways to have less waste. (One day, after drawing a picture, Elizabeth turned the paper over to draw on the other side, announcing that she was trying to use less paper so we could save trees).

Through the process of learning about caring for our environment, children became active participants in their school community. Engaging in the planning and following through with these plans along with their own reflections inspired them to think deeply about the concept of caring for the world. Perhaps this knowledge will help them to realize that they can make decisions, regulate their own behavior and take responsibility for their actions as well. It appears that they do grasp the concept that their behavior has bigger implications. For example, Elizabeth expressed: “I hope nobody cuts down all the trees and makes them into paper. There would be no more trees for the birds to live in.” Cullen added: “Oh no. The trash is winning. We hope our recycling gets used again.” The children, as always, inspire us to respond with action. If the children in West AM have anything to do with it, which they will, the world is in good hands.

Collaborative Construction in East PM
By Adrienne Lomangino, Head Teacher

Children entering each of the nursery classrooms at Bing join a large social world with children who vary in age from 2 years, 9 months to 4 years, 9 months at the beginning of the school year.

Within this expansive social environment of 36 mixed-age students, children can pursue activities of interest with peers of the same or different ages and return to them for repeated exploration. In East room this year, the children’s interests repeatedly returned to building big. Their focus on large-scale construction activities has highlighted the value of mixed-age classrooms with many students.

The “building-big” focus began with children constructing long segments of stackable pegs and examining their length. The plastic pegs are 2 inches long with a hole at the top for stacking. After using all the pegs in the classroom the children still wanted more. Once the teachers found more pegs, the children kept stacking them. The line was soon too long to keep at the table, so teacher Mark Mabry suggested to Evan (4 years, 10 months), William (4 years, 4 months) and Alex B. (4 years, 5 months) that they move it to the carpet. Their repeated exclamations over how long the “tower” was led to the question of how many pegs they had used. The teacher assisted the children with counting the pegs up to 90. When Alex B. found more pegs, Evan wondered whether now they had 100. Alex B. reported however that they did not have that many, the additional 3 that he found gave them 93.

Their joyous comments about how long the “tower” was included the assertion that the peg line was longer than teacher Amanda Otte. So teacher Mark took the children outside to teacher Amanda in the yard and cut a length of string as long as she is. The children then laid the string along the line of pegs inside to confirm that it was indeed longer than teacher Amanda. (During this activity, Amanda became the standard of height, one that children referred to throughout the rest of the year.)

The building activity has illustrated the value of mixed-age classrooms for young learners. Research comparing mixed-age and same-age classrooms has revealed benefits for young children’s cognitive, social and communication development when they have the opportunity to observe and interact with older peers (Bailey, Burchinal and McWilliam, in Child Development, 1993, volume 64). Although the peg “tower” building was instigated by several older boys, children of varying ages joined into the activity. Younger children assisted with adding on pegs and listened to the conversations about length. Thus, the experienced players modeled and organized complex play that allowed for varying forms of participation and learning. During later sessions, younger learners returned to the pegs to create lengthy segments.

Within a mixed-age setting, younger learners gain exposure to ideas that support them to engage in more complex play than they would with same age peers. The older children have opportunities to take on a teaching and mentoring role in which their expressive language and perspective-taking skills are fostered as they describe and explain their ideas (Katz, Evangelou and Hartman, The Case for Mixed-Age Grouping in Early Education, 1990).

The three initiators of the tower building returned to this activity several times. After recreating the line of pegs all the way across the block area and out
the door on another day, Alex B laid double-sized unit blocks along the peg "tower." He counted the 20 blocks along its span. He could then not only attest that the "tower" was taller than Amanda, but he also was able to give a specific measurement. Children have revisited this interest in height with different materials, including unit blocks, duplos, woodworking, magnetiles and sand. As an example, Alex B. and Evan built a tower in the block area by alternating layers of long blocks and boards. Once they ran out of boards, Alex B. suggested using two smaller boards instead. Onlookers stood next to the tower to check whether it was taller than they were. The following excerpt from their play reveals the collaborative nature of their building and their focus on height:

**Evan:** Now it’s almost… it’s at it’s at my hair now… it’s almost as tall as me… it’s at my face now… we’re running out of long blocks.

**Alex B.:** No. We haven’t… I got more longs here.

**Evan:** I’ll get short ones. Now let’s switch, Alex, again… let’s switch again, Alex.

**Evan:** I got all these… I got the whole stack of them!

**Alex B.:** And how many we need… we need more than one. Evan… no, that’s not enough Evan… Now we need two more.

**Evan:** I got two more… more than two more.

**Alex B.:** Now let me do the two longs.

**Evan:** Let’s measure. Oh it’s taller than me, it’s taller than me now!

**Alex B.:** It’s taller than Evan’s head now. **Evan:** Wow, we’re all done.

Photo not available online.

ALEX B.: No we aren’t! It have to be taller… now you have to do it. You’re not tall enough to be done.

Bing’s nursery school class sizes allow for both cross-age and same age interactions. While the younger children engaged in more complex play with the ideas for the building-big play were generated and elaborated through interactions among more experienced players. The 4-year-old boys supported and challenged each other as the tower project emerged during play. While some studies of mixed-age settings with small groups have questioned the value of these experiences for the older learners, the children’s activity in East room demonstrated the importance of having a large enough class size for the older learners to be cognitively challenged and inspired. While in many cases, same-age peers will provide such challenge, in a large class of children with varying areas of interest and expertise, a younger learner may also be the source of knowledge and motivation for an activity.

Kenji (4 years, 6 months) explicitly referred to such inspiration during a woodworking project. As he set out to connect pieces of wood, using peg board bridges and nails to attach them, he had the following exchange with a teacher:

**TEACHER:** Why do you want to make it so long?

**Kenji:** In order to make it big, you have to make it long.

**TEACHER:** Why do you want it to be so big?

**Kenji:** Because I want to see what it looks like. Momin made one that was big the other day. You know how I know how to make this so long? Because Momin taught me to do it.

The project has offered many opportunities for positive collaboration. At the woodworking table, Evan connected pieces of wood until he built a linear project that was longer than teacher Amanda. This woodworking evolved into a collaborative class-wide project as Evan elicited more help to make it as long as possible. Children of varying ages and skill levels added pieces to the meandering construction until it was over 140 pieces long. While younger children often create woodworking projects using only a couple of pieces, in this case they were able to participate in the creation of an elaborate group project. During the final week of school, the building-big idea resurfaced. Alex B. (5 years, 2 months) and Allison (4 years, 1 month), a mixed-age pairing, built the biggest project of the year together. They started out on the patio, intending to see how long a line they could make with the blocks. When they reached the edge of the patio and still had some blocks, they extended the line into the yard. Once they used up the hollow blocks, they turned to the unit blocks, hauling them out in carts to make a line that extended over the hill and around the sand area. Several other children joined in the construction, adding on blocks until snack time.

Throughout the year, children have revisited the idea of building big through collaborative construction projects. Across repeated experiences they have explored the advantages and constraints of varying materials. Although the 4-to-5-year-olds provided much of the focus and inspiration for the building efforts, the younger children joined in and picked up on the goals and ideas. Their voices and expressions revealed the excitement and satisfaction that infuses joyful learning.
Ode to Sound and Music: A Classroom Project

By Nancy Howe, Head Teacher

In the car today, on the way to school, I heard a jazz trio. There was a trumpet, a cello and a drum! —Alice

Listening to complex music, like the baroque fugues of Bach, is as important for brain development as learning to read. Research has shown that when children are repeatedly exposed to complex music, systematically sequenced in complexity, neural networking in their brains is increased, leading to long-term, higher-level cognitive functioning throughout life.

—Music for Their Minds, Young Children, Rebecca Shore and Janis Strasser, March 2006

At the beginning of winter quarter 2010, teachers in the Center PM classroom placed a variety of rhythm and traditional instruments on the discovery table for the children to interact with and explore. Children were immediately drawn to the instruments: a triangle, a set of maracas, a guiro, rhythm sticks, a drum, a Cajun washboard vest, spoons and a ukulele. They gathered spontaneously to play them, not only upon entering, but also throughout the afternoon. As the children became more experienced with the instruments, they organized impromptu parades around the play yard and concerts in the yard’s redwood grove. They also began to incorporate musical instruments into their dramatic play, both outdoors and inside the classroom. For example, they used a triangle as a doorbell and a drum became a car’s horn.

Over the next few weeks, as teachers observed the children’s growing interest in music, we decided that “Sound and Music” would be our long-term classroom project.

Teachers were interested in finding out what children already knew about sound, music and musical instruments. Teachers began ethnographic research and developed questions. When asked, “What is your favorite instrument?” children responded enthusiastically with their preferences.

GAB: I like the violin because it has a bow.
JOHN PAUL: I like the drums because then I can wake everyone up in my house.
SARAH: The piano. I like the sound. It’s low. It’s in a lot of ballets and I like ballets.
ROHAN: The sax because I like the keys.
ALEJANDRA: I like the flute because it’s like whistling.

Teachers arranged a variety of musical instruments on an art table as a way to heighten children’s awareness of each instrument. Paper and pencils were set out and the children were invited to look closely, interact with the instruments, ask questions and then draw what they saw. Observational drawing is a cognitive teaching tool that teachers often use to help children develop a deeper understanding of an object of study. While drawing a saxophone, Kiran said, “Press one and it’ll make the other button move. They’re connected.” Alexandra said, “You blow there and sort of press some buttons all around it.”

Teachers were also interested in understanding children’s theories about sound and how it travels.

MARTY: Sound blows. The little molecules that sound are made of travel around.
YAYA: Sound travels like a train!

As the project progressed, children became more aware of sounds in their environment: sounds heard on the Bing play yard, kitchen sounds, sounds of the night, man-made and mechanical sounds and what John Muir referred to as “the music of nature.” “I heard some grumbling and that means a storm is coming!” said Amelia. Parents shared anecdotes from home about the children’s interest in sounds and music. On a walk with his mother, Nicholas said, “Mom, even cars and trucks sound like music.”

Children discovered ways to use their body to make sounds and music including foot stomping, handclapping, finger snapping, knee tapping and even whistling. They were intrigued by how they could control and regulate their voice to express emotions, vary speed and alter volume. Children enjoyed coming up with metaphors for loud sounds and soft ones.

As loud as:
ALEXANDRA: A nighttime train.
FAYE: Lions roaring in the night.

Bing Nursery School has long recognized the value of music for young children and has made music an integral part of its early childhood curriculum. Each day includes a half-hour music and movement activity, and each classroom holds a large selection of traditional rhythm instruments, such as maracas, tambourines, rhythm sticks, triangles, guiros and drums, and a piano that can be played by children, teachers, students or parents. Every classroom also has an iPod with a variety of musical genres from a wide range of eras and cultures, and the best in children’s music. Available to all classrooms are wooden tone blocks, auto harmonicas, drums of all sizes and shapes, and colored silk scarves, tap shoes and tutus for movement and dance.

An extensive music library of songbooks and teacher resource books complete the extensive array of musical opportunities.

Story time in each classroom incorporates new as well as familiar songs, action rhymes and finger plays so that children have the opportunity to sing together as a group. Teachers inspire one another, swapping songs and sharing props. Some teachers enjoy playing an instrument like the banjo, ukulele or guitar.
ROARRRR!
As quiet as:
AMANN: A whisper.
KIRAN: The world. It’s a really beautiful paradise.

Music inspired kinesthetic expression. Children danced with brightly colored scarves to the music of Stravinsky’s Firebird and ragtime music encouraged tap shoe shuffles!
What kind of music makes you want to dance?

YAYA: Beethoven. My daddy picks me up when the loud parts come!

Story time was a way to deepen the children’s understanding of music and create a shared musical culture. Teachers selected books that had sound or music as their central focus and they creatively transformed a non-musical story into a musical one by using the guitar as sound effect for the story Corduroy. Technology was successfully incorporated into stories as teachers identified selections to highlight musical genres and artists. Guest musicians, including family members, Stanford students, former teachers and even neighbors, performed regularly at story time. They also answered the children’s many insightful questions. The questions ranged from the personal, “How old were you when you started playing?” to the more technical, “What happens when you push that key down?” or, “How does the guitar sound when you unplug it?” There were innovative musings like, “What would happen if you put a stone in a trombone?” or “Can you play a clarinet with no hands?”

Several children played their violins, one accompanied by her aunt on the upright bass and the other by his violin teacher. There were solos, duets and a string quartet. Mark Applebaum, Stanford associate professor of composition and theory and a Bing parent, brought his entire improvisational music class to perform for the children. Teachers and parents noted that the children’s attention span for listening to music increased dramatically. They truly became an attentive, appreciative and supportive audience.

The children’s repertoire of musical knowledge grew to include musical genres from reggae and jazz to classical and country. They were introduced to classical composers Beethoven and Mozart. They had opportunities for first-hand experiences with at least a dozen musical instruments, including trombone, electric guitar, didgeridoo and even a 12-foot-long telescopic Swiss alphorn.

Beethoven’s Ode to Joy, an easily recognizable piece of music introduced at story time, became the class theme song. The classroom piano was a frequent gathering spot, often shared by several children. It allowed for flexibility in learning styles as auditory learners enjoyed playing by ear while a parent provided the sheet music for Ode to Joy with color-coded notations and matching colors attached to the piano keys for the more-visual learners. As children became familiar with the music, they were eager to practice, experiment, share or collaborate with one another. A child came up with his own lyrics for the music by incorporating names of countries he knew: Ode to Canada, Ode to Australia… It spurred children’s interest in adding their own contributions and resulted in a collaborative Ode to all things held dear at story time: Ode to My Brother, Ode to My Mother, Ode to Nature, Ode to Food…

Children enjoyed spontaneously making and playing their own instruments. They created instruments from found materials: tongue-depressor harmonicas, cardboard-tube didgeridoos and rain sticks, rubber-band guitars, pebble maracas, a hanging xylophone, grass whistles and drums made from large cardboard tubes used to construct concrete pillars. They made a guitar out of paper, a saxophone from wood as well as one from clay and an “orchestra city” made with LEGO. In the redwood grove, children formed a stomp band, like its Broadway namesake, using overturned plastic paint buckets, pot lids and broomsticks. Its call and response beat echoed through the trees! They created an Appalachian jug band with washboards and a one-string bass made from a washtub, broomstick and fishing line.

The culminating event to the Sound and Music Project was a concert performed by all the children at the Center PM end-of-the-year potluck picnic. Each snack group chose a song and musical instruments to play—there was an Appalachian jug band, a stomp band, a rubber-band guitar band and a song highlighting the voice as an instrument. Hopefully, each child will remember this year with a song in their heart and an ode to the joy created when we all made music together!
Time to Wonder in the Natural World: Developing Imagination, Creativity and Inventiveness

By Sarah Wright, Head Teacher

Sudden gusts of wind blow
Showering down gingko-leaf-snow
Who made that happen?
I could not see
Who made the leaves dance around me?

Running down the hill, chased by the wind, a three-year-old stops dead in his tracks. He looks up to the sky, transfixed as a gust of wind leads the dance of falling yellow gingko leaves. As each golden leaf swirls around his body, the child turns to me squealing. “Do that again, teacher.” Honoring his receptivity to the moment, I smile, acknowledging the obvious delight he takes in soaking up the richness of his world.

The magical moment, which inspired me to write the poem above, took place at Bing, a nursery school designed to cater to young children’s joyful spirits and their profound connection to the natural world. This particular setting allows children the freedom to delight in their own sensory discoveries while stimulating the child’s imagination, creativity and inventiveness.

In this environment, young children interact with nature, eagerly absorbing the sounds, feels, tastes and smells of the natural world. The outside is considered a classroom, where children play and discover, observe and collect, categorize and illustrate, fantasize and imagine, invent and hypothesize. They have the chance to create their own rules, to imagine limitless possibilities and to express their inventiveness.

These opportunities seem much more limited for young children today. Heavily structured schedules, which often include organized sports on manicured playing fields, or rule-riddled play in prescriptive playgrounds, seem to lack the sensory nourishment and the possibility of discoveries on which young children thrive.

At Bing we strongly advocate play in the natural environment, and argue that natural settings are essential for healthy child development. We believe outdoor play provides multisensory experiences that stimulate the imagination, creativity and inventiveness observable in almost any group of children playing in a natural setting. But, how do natural spaces and materials stimulate children’s limitless imaginations and serve as the medium of creativity and inventiveness?

On closer observation of children’s play in West PM, it appears that the yard provides children with free space; space that is at their disposal, space that is manageable, and space that has unlimited variables. Such variables include sand, water, dirt, hills, the bridge, black top, grasses, plants, pine cones, trees, flowers, berries, twigs, sticks, birds, bugs and animals. According to the “loose-parts” theory described by architect Simon Nicholson in the 1970s, these elements are essential for children’s creative development. He states: “In any environment, both the degrees of inventiveness and creativity, and the possibility of discovery, are directly proportional to the number and kinds of variables in it.” (How Not To Cheat Children: The Theory of Loose Parts, Alternate Learning Environments, ed. Gary Coates, 1974)

The different variables offered in the Bing yards are open-ended; that is, children can, and do, use these variables in many creative ways to support their play.

A recent example of how children use these variables involves a toy baby and some gingko leaves. Horace had been carrying his baby around in the yard to keep him warm and safe, but when he wanted to go on the swing he didn’t want to just put the baby down. So, carefully, he scooped up a pile of ginkgo leaves to form a nest-like cradle to support his baby doll.

A second example involves the movable barrels and red benches. The staff lined up four benches in a row, and then on top of each bench set a barrel lying on its side. What effect would these structures have on group play in the yard? We saw that this new placement encouraged more fantasy, make-believe play, and in particular provided a set-up for boys and girls to play together in egalitarian ways. One group that climbed on top of the barrels informed me that they were flying to Vegas on unicorns and would be back in time for snack!

We have observed that when children’s play is fantasy-based and the play structures are less prescriptive, physical competence does not usually determine the play leader. Instead, social standing becomes based more on language skills, creativity and inventiveness.

In her book Child Care Design Guide, (2001), Anita Rui Olds, PhD,
suggests that children need extensive opportunities to be outside, as nature best provides us “with some of our most comforting experiences—wafting breezes, babbling brooks, sunlight dancing on leaves.”

As well as providing children with a sense of comfort, using outdoor space in creative ways serves two other functions. Firstly, it creates an ever-changing palette of interest that children can experience in their immediate environment. As Lilian Katz, PhD, strongly posits, the curriculum for young children must “include frequent opportunities for active firsthand investigation and direct observation.” (What to look for when visiting early childhood classes. Gifted Child Today, 30, No. 3, (pp. 34-37), 2007.)

Secondly, the attention and work necessary to keep up this environment not only connects the children to this space, but also makes the children accountable to it. The intentional investment in the environment by the whole school community, such as planting gardens or composting, has an impact on its identity. The yard becomes a cared-for space, a space that belongs to the children and teaches them respect for their environment.

“For ourselves, and for our planet, we must be both strong and strongly connected—with each other, with the earth. As children, we need time to wander, to be outside, to nibble on icicles, watch ants, to build with dirt and sticks in the hollow of the earth, to lie back and contemplate clouds…” (The Geography of Childhood, Gary Nabhan and Stephen Trimble, 1994.)

Taking Flight in Center AM
By Parul Chandra, Head Teacher

During this past fall quarter, a father visited Center Room and set up a paper airplane-making station. He brought books that showed how to fold paper to make different styles of airplanes, and paper in different sizes, textures and colors. A group of children responded very enthusiastically and they designed airplanes by folding paper in a variety of unique ways. They shared their planes, made planes for each other, discussed how to fly them and went into the yard and flew their paper versions. Their conversations revolved around air travel—how to fly a plane, experiences on planes, how to rescue paper airplanes from tree branches, the aerodynamics of planes, how far each paper airplane flew, and how various shapes, sizes and types of paper made the airplanes fly differently.

A few days later, the classroom teachers responded to the engagement of the children and their airplane making by providing materials such as yarn, tongue depressors, small cardboard boxes and triangular pieces of cardboard. The children used the materials to design even more complicated airplanes. The teachers noticed that children who were not part of the initial group also began to design, fly and talk about airplanes. This enlarged group was invited to share their unique creations at story time and during play.

At this same juncture, children noticed that when they added more materials, their planes were no longer as aerodynamic as they were when they were made just out of paper. They began asking questions, noticing the different styles of airplanes and sharing theories about how and why planes fly. Teachers brought in books about airplanes and read them to children during snack time.

Children were very interested in the books about airplanes and how they fly—so much so, that they went back to redesign their own paper airplanes. They talked to one another and to the teachers about why they were modifying their designs. Some comments were that, “It’s too heavy,” “It’s falling because there is too much glue on it,” and “Thinner paper works better.”

Over the next few weeks, the excitement over the airplanes was contagious, and the teachers continued to encourage it. Not all children were interested in designing planes with paper, so the teachers facilitated other modalities. Children played with clay airplanes; represented air travel with building blocks, unit blocks and big cardboard boxes; and engaged in dramatic play, storytelling and painting about air travel. Teachers provided other materials and opportunities for children to build, express and create using both their imagination and what they learned about airplanes, launching pads and sky travel.

At this point, teachers wanted to know what children knew about the mechanics of flight. So at each snack table, the teachers started a discussion and provoked children’s thinking by asking, “How do planes fly?”

MAYA: “They bring you to far places.”
EVAN: “An engine and five wings, because the tail and two wings out back. The wind takes it up when it goes fast down the runway.”
AMALIA: “First it rolls slow on its wheels, then it starts going fast on its wheels, then it starts flying.”
EMMETT: “Airplanes are loud. The engine was loud. Even before entering the plane, I could hear it from the window coming in.”

ELLA: “It’s the motor. It’s in the front of the plane. The pilot controls the motor.”
THEO: “Wings make them fly. Rockets go straight so they don’t need wings.”

JACK G.: “The plane rolls backward, it...
moves really fast, this way and that way. It soars like a bird. It tips side to side. On their wheels and then it drives in the air.”

FINN: “The captain drives it to the air.”
SUMMER: “When the plane stops to a place you are there.”
ZOYA: “When it goes down and lands it freezes. It waits till all the people get out of the plane. Then it goes up to the sky and flies to go where it has to go.”
JACK S: “You see the ocean and houses from the airplane and they look like ants.”

Sharing these theories with the larger group at story time generated more conversations and discussions about air travel. Teachers enhanced interactions and expanded the amount of materials available, such as recycled paper rolls, Mylar, plastic and more. This led children to design an airplane gallery on the patio displaying the airplanes and rocket ships they were making. Some children focused on designing airplanes, others on the aesthetics of displaying the airplanes and others on making tickets to view the airplanes.

By this time, every child in the class had a role to play in an activity relating to airplanes. So it’s no surprise that they had begun using airplane language in their play, such as “red eye,” “turbulence” and “layover.”

Later, teachers used a globe and maps during story time and focused on travel to different countries, sang songs about travel to different countries, and encouraged children to imagine their own travel.

Here are some other children’s stories about airplanes and flying:
After making her plane with unit blocks Alyssa said, “It’s going to Hawaii and it is landing. This is where the pilot sits. These are the passengers’ seats. This plane does not fly to Hawaii in the winter. It only flies in the summer.”
EVAN: “A red eye is when you go at night and you get red eyes because you can’t sleep.”
MAITA: “Planes go so fast you can’t see them sometimes. They go very high very far away in the sky.”
FINN: “My mommy and daddy get my bags and put them under the seat, get a ticket and then try to go all the way in. You need tickets to get into the plane.”

To culminate the project, teachers created a mock airplane using room dividers and hollow blocks. Children made paintings to show what they would see if they were looking out an airplane window. There was assigned seating. A real pilot in uniform, Jeff Portusach, visited the classroom and the children gave him a tour of their airplane gallery. At story time, Portusach sat at the front of the mock airplane and discussed his job and the actual flying of a plane. He answered children’s questions. The children’s questions and understanding of air travel had grown and they had refined their thinking. The visit ended with an imaginary safe landing in Hawaii, and children were greeted with leis as they disembarked.

The play surrounding airplanes continued after the pilot left. Children looked immensely satisfied as they redesigned and refined their airplane creations until the airplanes actually took flight.

Obviously, children learned a tremendous amount about airplanes, airports and air travel. But from an early childhood development perspective, they learned many more important things. Their learning experience went beyond simply gaining knowledge about the topic.

Through this process, children learned to recognize and identify their passions and their interests. They experienced collaboration by learning to listen and respect the ideas of others. They were investigators, able to gather and access information. This process enabled them to sustain interest in a topic and thus experience self-regulation and divergent thinking.

The children’s feelings and emotional growth during this project were also very important. Through a shared interest, they experienced a sense of belonging. They also developed confidence as they talked and worked together, sharing their ideas in small and large groups. They gained confidence telling stories and flying their planes. Teachers observed that children were feeling pure joy as they followed their passion for air travel.

In this instance, the catalyst was a parent’s visit. It sparked collective interest in a topic. Teachers use interests such as this to facilitate and enhance learning. Many situations can be catalysts and it is the teachers who observe, respond, promote and enrich this type of enhanced learning experience.

The key to the success of the airplane classroom experience was the teamwork, sensitivity, responsiveness and resourcefulness of the classroom teachers. For example, by bringing in real-world recyclables to supplement the classroom supplies, teachers enhanced the children’s creative opportunities and enabled them to experiment and discover new principles. The type of educational framework known as “project-based learning” or “emergent curriculum,” succeeds when teachers work as a team to ensure that children experience a stimulating environment that challenges their imaginations and allows learning and growing in the broadest terms imaginable.
In the school year 2008-09, the children in East AM were convinced that bats lived in the redwood trees just outside the classroom doors. They became fascinated with this idea and were eager for more information about bats. Children were seen “flying” throughout the yard together, sporting paper bat wings. It was through this common interest that last year’s bat topic developed.

This school year, the interest in bats resumed. Children often requested paper wings to wear, but we noticed that their interest had broadened. While bat wings were still very much in fashion, new wing looks were being added to the collections daily. Some of these styles included ladybugs, butterflies, airplanes, Tinker Bell Man (an invented superhero) as well as many other more conventional superheroes. The common element was “wings.” This is how our wings topic emerged.

Children were interested in what things have wings and were eager to resolve some questions that arose during the information gathering process. For instance, “Do helicopters have wings?” the children wondered. Upon looking at photos of helicopters, it was determined that they do not have wings, but instead have propellers (rotors). “Do blimps have wings?” Again, we discovered (from a diagram) that the small projections on the back that look like wings are actually fins called “elevators” and “rudders.” They are used to steer and steady the blimp. Finally, our research revealed the answer to the question, “Does Superman have wings?” We agreed that Superman does not have wings, but instead has a cape that allows him to fly.

The children listed many things that do have wings, such as:
- Airplanes, including delta wing airplanes, paper airplanes and jets
- Rockets
- *Star Wars* ships
- Birds, including owls, ducks, chickens, blue jays and hummingbirds
- Bats
- Bugs, including bees, butterflies, ladybugs and dragonflies
- Fairies, including Tinker Bell and the equivalent “Tinker Bell Man”
- Dragons
- Pterodactyls

Children had many theories, ranging from the realistic to the fanciful, about what wings were made of. Some examples of the realistic ideas included, “Airplane wings are made out of metal,” and “Wings are made from feathers because birds are made out of feathers and so are wings.” Some of the more fanciful notions included, “Wings are made of air,” “Butterfly wings are made out of fur, which is the same thing as feathers,” and “Wings are made of birds.”

As a classroom community, we raised caterpillar larvae through their metamorphosis into Painted Lady butterflies. This gave children an opportunity to study butterfly wings up close. We also used magnifying glasses to inspect ladybugs in a terrarium. We incubated eggs to hatch chickens, which also offer wings for study. Besides these living species with wings, children enjoyed testing different types of airplanes to see how well they flew. They constructed the airplanes from paper and other found materials.

These collective experiences, shared through our topic of wings, offered opportunities for children to form a classroom community and to engage in a common project. They practiced collaborating while sharing their ideas and hearing the ideas of their friends. Our wings study also promoted creative expression as children constructed various types of wings and took on the roles of different winged things: One has a certain “way of being” when one is a bat, and another when one is a fairy. Having the chance to play out these roles, both individually and through sociodramatic play, enables children to come to a deeper understanding of how it is to be whatever they are pretending to be.

That school year “flew” by (pun intended) and another has begun, bringing children into the classroom with new shared interests. It is through cultivating these common themes that we build the foundation of our classroom culture for the year.

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Photos not available online.
Bing Nursery School teachers started off the school year by participating in a staff development day offering tips for making classrooms more enriching and comfortable for everyone in the wide-reaching Bing community. The session, held in October 2009, also provided teachers a better understanding of psychological research at Bing.

The morning began with posture therapist Esther Gokhale, an alumni parent and licensed acupuncturist famous for helping those suffering from the aches and pains of a busy life. Giving an overview of her book 8 Steps to a Pain-Free Back, Gokhale explained how human bodies (teachers’ and parents’ bodies in particular) are compromised by the misuse of muscles and poor posture. While demonstrating how to walk and sit with your imaginary “tail out behind you,” and simple exercises designed to keep the shoulders back, Gokhale gave teachers some tools to combat pain while bending, walking, standing and sitting in child-sized chairs all day at Bing.

Teachers also shared exercises and songs to use in the classroom, as well as techniques to help simplify workdays. Demonstrations included head teacher Nancy Howe’s easy snack recipe, crunchy bananas (banana slices rolled in graham crackers crumbled by a unit block); songs for snack time that encourage eating and sharing; using play dough “putty” to keep nails in place at the woodworking table; and assistant teacher Stephanie Holson’s ingenious “bleach stenciling,” turning bleach stains on clothing into small works of art.

Teacher Seyon Verdzabella introduced Easyfolio, a new online database for teachers that enables electronic documentation of classroom life for accreditation required by the National Association for the Education of Young Children. This paperless method of capturing the progress and climate of each classroom saves Bing money and time, and allows teachers to upload photos and documents for better record keeping. Easyfolio helps teachers streamline the process of recording the work, play and interests of Bing children.

Staff development day also offered teachers a chance to get better acquainted with the inner workings of the research process, and the scientific questions behind each of the current psychological studies conducted at Bing. Gregory Walton, PhD, an assistant professor in Stanford’s psychology department, visited to discuss social connectedness and shared motivations, the concepts behind some of his work with Bing children.

Walton and fellow researchers are exploring how a sense of social belonging in a group (whether real or perceived) can motivate participants to persist through difficult or time-consuming tasks. “Just doing a task with others,” he said, “may increase interest and engagement in the task itself.” [See page 7 for more information.]

Allison Master, a primary researcher who is now a sixth-year psychology graduate student, discussed her exploration of this topic through puzzle tasks for children. So far, individual children appear far more likely to persist in completing a puzzle if they believe they are a part of a group of children whose task is to work on the puzzle than children who believe they are working alone.

Primary researcher Lucas Butler, now a fourth-year graduate student, also discussed his study of social interactions, motivation and learning in young children, adding that research shows conveying the notion that “we’re in this together” can help motivate children as young as 14 months complete a task. [See pages 7 and 9 for more information.] Butler also shared highlights from another study that explores the importance of intentional demonstration in young children [See pages 8 and 9 for more information.]

Carissa Romero, now a third-year graduate student and a primary researcher working with psychology professor Carol Dweck, PhD, discussed different types of praise. For decades, researchers exploring the impact of praise have found that praising a child for some innate quality, like intelligence, has less of a bolstering effect than praising the child’s work or effort. Praising a child’s process rather than their person may allow them to preserve a positive self-concept when they encounter a challenge, and allow them to bounce back and give their task another try. Romero investigated the effect of subtle differences when “wow,” considered a neutral and non-descriptive type of praise, was directed at children's work as opposed to children themselves.

“It’s great to get a chance to sit down with staff and find out more about Bing research, and how we can keep making improvements in our own teaching each day,” said teacher Amanda Otte. Teacher Sarah Wright adds, “These sessions give teachers time to pause, and to think. We need the time for self-reflection and sharing, so we can grow as educators and advocates for children.”
Winter Staff Development Day

By Stephanie Swenson, Assistant Teacher

Each quarter, Bing teachers and staff look forward to the day in which they get to become students themselves, participating in workshops, presentations, lectures and more. This past winter’s staff development day, held on February 16, 2010, was no different. Joining together in the Tower House, the newly renovated building adjacent to the school, the staff were treated to presentations from the major annual conference for early childhood educators; a communication workshop on giving and receiving feedback; and a guest lecture from one of the newest assistant professors in Stanford’s School of Education.

The morning began as Beverley Hartman, director of Bing Institute, and Karen Robinette, head teacher, delivered their presentation, “Basic Materials: An Approach for Early Childhood Curriculum.” Hartman and Robinette originally presented this talk to early childhood educators from across the country in November 2009 at the National Association for the Education of Young Children’s Annual Conference and Expo in Washington, DC. The staff enjoyed listening to these two master teachers extol the importance of basic materials—blocks, clay, paint, sand and water—as the foundation for curriculum at Bing. [See page 27 for more information.]

Executive and management consultant Roy Blitzer then led the staff in a workshop entitled “Giving and Receiving Constructive Feedback.” Blitzer, who is also an adjunct professor at several universities in the Bay Area and a self-described “communication-guru,” helped the staff establish ground rules—behavioral guidelines for how the staff is going to practice giving each other feedback. “Giving and receiving feedback is the most important skill of any leader, teacher, or parent, or anyone who wants to get anything done,” Blitzer explained. “If you master this skill, you will be infinitely more powerful in your job.”

Blitzer had the staff brainstorm types of feedback, discuss the five different “key actions” in constructive feedback and how best to receive feedback, and watch a few videos that demonstrated examples of both good and bad feedback. With the workshop coming to a close, the staff broke out into groups of three to practice their new feedback skills. Blitzer concluded with a final piece of advice: “If you continue to think and practice, then you will find feedback becomes powerful to get people to the best they can be.”

Following lunch, Jelena Obradović, PhD, a new assistant professor in the Child and Adolescent Development Program in the School of Education, lectured about her two previous studies.

The staff appreciated learning about her cutting-edge research that assesses how risk and adversity affect children’s development over time. [See page 6 for more information.]

Following Obradović’s lecture was another presentation from the NAEYC fall Conference, this one given by head teachers Nancy Howe and Parul Chandra. Entitled “A Gift of Time: A Window into Bing,” Howe and Chandra’s talk resonated strongly with the staff, reflecting on both the value and necessity for children in today’s society to have time to just play. [See page 27 for more information.]

Howe and Chandra’s poignant talk completed a full day for the Bing staff, who went home with new skills in giving and receiving feedback, information about the rapidly evolving research on how children react to adversity, and renewed appreciation for Bing’s philosophy on the importance of time to play and basic materials in children’s early development.

International Child Development and Education Forum

Director Jennifer Winters was a guest speaker last fall at the International Child Development and Education Forum, held in Shanghai October 19-21, 2009. Winters spoke on the value of mixed-age grouping in early childhood education. The conference addressed disparities in early education for children in urban and rural settings in China. It featured speakers from Australia, China, Denmark, Japan, Korea, Norway and the United States and was sponsored by the Soong Ching-Ling Foundation, Shanghai World Expo Bureau, Shanghai Jing An District Government and East China Normal University.

Forum participants of a workshop at Jing An Wei Hai Kindergarten on mixed-age groupings in early childhood education included (from left): Fu Fang, director of Jing An Wei Hai Kindergarten; Qian Wen, professor of education, East China Normal University; Jennifer Winters, director of Bing Nursery School; and Chia-wa Yeh, head teacher at Bing Nursery School.

Tower House Talks

Bing Nursery School held two one-hour talks for staff in the Tower House spring quarter. The talks featured retired master teachers Bonnie Chandler and Sue Gore. Gore, who retired in June 2009, shared her insight on selecting materials, setting up the environment and guiding children. Chandler reminisced about Bing’s early years. Chandler worked closely with Edith Dowley, PhD, visionary founding director of Bing, during Dowley’s later tenure in the late ‘70s. Chandler shared words of wisdom on education and working with children and families.
The quarterly Staff Development Day on April 26th was an excellent opportunity for the Bing teachers and administration to reflect on teaching practices, and to learn about new studies being conducted at the school this spring. Gathering in the beautiful Tower House, the group began the day with an exercise in teamwork, demonstrating the importance of trust and patience when working with colleagues, and setting the stage for the thoughtful discussions that followed. Next, teachers watched videos of children’s play that portrayed collaborative and creative scenes occurring each day in the classrooms at Bing. An exercise in detailed observation, reminiscent of sports teams reflecting on old play tapes, allowed each teacher to consider the many facets of learning that occur during children’s imaginative play, as well as to share perspectives and strategies for how to best support children in such significant play. The forum encouraged teachers to consider the play more objectively and to learn from the breadth of expertise available at our school.

As a laboratory school for the Psychology Department at Stanford University, research is an integral part of the school. This April, the staff learned more about some of the studies taking place at our school.

Taylor Holubar, a second-year graduate student, presented on a project he began in the winter quarter of this year: “Knowing who Knows: Preschoolers’ Understanding of Adults’ and Children’s Differential Expertise.” Holubar began his project with the understanding that children tend to defer to trusted adults in their lives when they have a question regarding factual information on a given subject. Past studies have shown that children understand that different adults have varying expertise in specific domains and in some cases even defer to other children if they believe a peer knows more about a topic than an adult (VanderBorght and Jaswal, Who knows best? Preschoolers sometimes prefer child informants over adult informants. Infant and Child Development, 2009, volume 18, 62-71). Holubar has begun to explore differential expertise in more nuanced ways, asking whether children’s understanding can be applied to more subtle distinctions; for example, while children trust adults on factual/nutritional information about food, would they trust children more than adults to tell them if a food tasted good? Holubar looks forward to exploring this topic further and sees a range of future considerations, from a more detailed understanding of children’s evaluation and use of expertise to implications for healthy eating interventions.

Rodolfo Cortes, a second-year graduate student, presented “Explorations in Socio-cognitive Development,” in which he discussed a number of current studies at Bing, including his examinations of children’s helpful behaviors. While a much-publicized recent study suggests that children’s desires to help others is innate, Cortes is working with psychology professor Carol Dweck, PhD, to explore strategies on how to “teach” helpfulness. Does the extent to which adults help children through difficult tasks—even in play— influence the extent to which children are willing to help others? Can saying words like “we” and “ours” create a form of psychological togetherness that is more motivating than isolating words like “you” and “yours”?

Allison Master, a sixth-year graduate student, who has presented a number of meaningful studies on children’s motivation, has also turned her lens toward preschoolers’ helpful behaviors. Master is working with postdoctoral scholar Christopher Bryan, PhD, building on Dweck’s landmark studies in motivation, in which she determined that praising a child’s person rather than their effort—labeling a child as a “good drawer”—can have adverse effects on motivation. Master has based her newest study on a distinction between labeling behavior with a noun (“Would you like to be a helper?”) rather than a verb (“Would you like to help?”) Recognizing that such labels have strong implications of children’s (and adults’) senses of identity, Master hypothesizes that children may be more influenced when thinking in terms of noun labels.
Look inward to help bolster stronger relationships with young children. This was the message of one keynote speech at California’s major annual meeting for California’s early childhood education professionals—the California Association for the Education of Young Children, which took place in Long Beach, Calif., April 8-10. Bing teachers Andrea Hart, Stephanie Holson, Kitti Pecka and I attended lectures, workshops, networking events and special exhibitions celebrating early childhood education in California and the world.

“Since children develop and acquire new skills in a social context, early childhood programs have many opportunities to support child development across all domains,” said the speaker, Mary Hartzell, author and director of the First Presbyterian Nursery School in Santa Monica, Calif. Ample research supports that children who learn how to make choices at a young age persist when facing new and increasingly complex challenges, problem-solve in collaboration with peers and adults and develop keen emotional literacy (identifying emotions in themselves and others) and will be more resilient as they enter school. Hartzell explored this and others) and will be more resilient as they enter school. Hartzell explored this and others) and will be more resilient as they enter school. Hartzell explored this and others) and will be more resilient as they enter school. Hartzell explored this and others) and will be more resilient as they enter school. Hartzell explored this and others) and will be more resilient as they enter school. Hartzell explored this and others) and will be more resilient as they enter school. Hartzell explored this and others) and will be more resilient as they enter school. Hartzell explored this and others) and will be more resilient as they enter school. Hartzell explored this and others) and will be more resilient as they enter school. Hartzell explored this and others) and will be more resilient as they enter school. Hartzell explored this and others) and will be more resilient as they enter school. Hartzell explored this and others) and will be more resilient as they enter school. Hartzell explored this and others) and will be more resilient as they enter school. Hartzell explored this and others) and will be more resilient as they enter school. Hartzell explored this and others) and will be more resilient as they enter school. Hartzell explored this and others) and will be more resilient as they enter school. Hartzell explored this and others) and will be more resilient as they enter school. Hartzell explored this and others) and will be more resilient as they enter school. Hartzell explored this and others) and will be more resilient as they enter school. Hartzell explored this and others) and will be more resilient as they enter school. Hartzell explored this and others) and will be more resilient as they enter school. Hartzell explored this...
The Wonder of Learning: The Hundred Languages of Children
By Lisa Wesley, Teacher

The initial springboard of learning is wonder and curiosity,” said Amelia Gambetti, an international consultant for Reggio Children, an early-childhood education organization based in Reggio Emilia, Italy. More than 200 early-childhood professionals attended a conference held in Santa Monica, Calif., January 28-30, about the Reggio Emilia schools’ approach to education. Gambetti illustrated Reggio Emilia’s belief in the importance of listening to children’s ideas and creating conditions for learning that will enhance children’s powers of thinking. The schools’ intention, she says, “is to generate questions and search for answers.” Teachers see themselves as learners and researchers alongside children. Their role is also to listen and document children’s thoughts and ideas so they can be used to encourage further exploration and also be revisited to provide further thoughts on a topic.

The conference was held in connection with the Santa Monica opening of “The Wonder of Learning—The Hundred Languages of Children” exhibit this past January. This traveling exhibit tells the story of the educational experiences of young children in the municipality of Reggio Emilia, Italy. More than 200 early-childhood professionals attended a conference held in Santa Monica, Calif., January 28-30, about the Reggio Emilia schools’ approach to education. Gambetti illustrated Reggio Emilia’s belief in the importance of listening to children’s ideas and creating conditions for learning that will enhance children’s powers of thinking. The schools’ intention, she says, “is to generate questions and search for answers.” Teachers see themselves as learners and researchers alongside children. Their role is also to listen and document children’s thoughts and ideas so they can be used to encourage further exploration and also be revisited to provide further thoughts on a topic.

The conference was held in connection with the Santa Monica opening of “The Wonder of Learning—The Hundred Languages of Children” exhibit this past January. This traveling exhibit tells the story of the educational experiences of young children in the municipality of Reggio Emilia, Italy, an area that is internationally known for its innovative and thoughtful approach to education in early childhood.

Bing teachers Lars Gustafson, Mark Mabry, Chia-wa Yeh and I attended the conference. The exhibit brought to life several school projects, or areas of exploration, through photos, videos, children’s words, and sometimes actual examples of their creations. One area showed toddlers’ exploration of a variety of paper, cloth and similar materials through one color: black. Working with only one color, the children concentrated on other aspects of the materials. They crumpled, tore, rolled paper and otherwise explored the different properties of the materials. This project highlighted the fact that the children are valued for what they know and are capable of from a very young age.

Another project highlighted the Reggio Emilia schools’ emphasis on natural materials, as well as involving children in the process of learning and creating. Children gathered leaves, sticks, bark, flowers and other natural materials and then sorted them. Later they were ground into powders and used for explorations with clay. Eventually the children mixed the powders into the clay and collaboratively created a “bracelet” for a tree. They brought the bracelet outside to a tree, essentially returning the materials to the outdoor environment. Collaboration is a skill that is valued and fostered as part of Reggio Emilia’s approach to learning.

One of the most captivating examples of their approach was seen through children’s explorations of light. Participants saw a video of toddlers interacting with sunlight as it came through the floor-to-ceiling windows of a classroom casting a pattern of light and shadow on the floor that changed as they explored it. Photos and written documentation of older children exploring light from projectors and the sun using a variety of materials, such as bottles, plastic and tools, were also on display. Two groups of older children took their exploration further. One group designed a “light-catching machine” to explore sunlight. The children had to figure out how to catch and reproduce paths of light, eventually creating a “path of light” to illuminate certain areas of their school. This required a great deal of collaboration, planning, design, focus and experimentation. Another group constructed a “tower of light,” a sculpture on wheels that could be moved to seek out the right sunlight and was built in three parts that could be stacked and interchanged to obtain varied reflections. Projects like this often require the use of experts from the community, such as carpenters or engineers, who can help support the children’s ideas and broaden their knowledge of a topic. As part of the exhibit, participants viewed the actual “tower of light” and did their own experimenting with light through the use of light tables and projectors.

As part of the conference, participants toured First Presbyterian Nursery School. Their staff was inspired by the Reggio Emilia schools and sought to provide their own interpretation of the approach. Many elements of the Reggio Emilia schools were visible at First Presbyterian. For example, shelves displayed photos of the families and many examples of children’s work. There were many cozy spaces for children to play alone or in small groups. The furniture in the housekeeping area, as well as the cups and plates used for meals, could have been found in any home. Throughout the school, children’s playthings were arranged beautifully, often in baskets. There was a separate studio with a variety of beautiful and natural materials and art supplies available for all to use. An atelierista, or art studio teacher, was part of the staff and was responsible for welcoming children’s ideas and helping them use the materials or other media to express themselves, often creating something relating to a class project. This spoke to the Reggio Emilia idea that children have a myriad of ways (symbolically called “one hundred languages”) to express themselves. As First Presbyterian teachers answered questions, it was clear that they valued children’s ideas and learning and were very thoughtful in their process of planning and reflecting on experiences in the classroom.

As the conference came to a close, presenters emphasized that participants should not try to recreate Reggio Emilia at their own school since each community and school is unique. Instead, participants were encouraged to reflect on their work with children and find ways to continually grow and learn.
NAEYC Conference 2009
By Quan Ho, Teacher

In 1909, President Theodore Roosevelt held the first White House Conference on the Care of Dependent Women and Children. This meeting brought together children’s advocates from across the education spectrum who worked to improve the welfare of the nation’s children. And so, at the 2009 National Association for the Education of Young Children Conference, in Washington, D.C., a banner flew marking the historic occasion, and attendees were reminded of America’s long-held commitment to children’s welfare.

Held November 18-21, the annual conference of the major professional association for those in the field of early childhood education and development offered seminars, training classes and round-table discussions on topics ranging from classroom practices to the latest research in brain development. Seven teachers from Bing attended the conference and six presented their own work.

Bing teachers Peckie Peters and Kitti Pecka made a presentation on the significance of play. Research has shown that children are learning at their most rapid pace when they play, explore and discover their environment, using internal motivation to construct meaning from their world. They use math, science, deductive reasoning, and language skills while engaged in these play-based activities and their work in these contexts prepares them for broader life experiences. Peters and Pecka articulated a framework for colleagues to understand the significance of play during this period of a child’s life, when some schools are switching their focus toward academic achievement.

Teachers Nancy Howe and Parul Chandra spoke on ways to respond to time pressure. Families across the nation are feeling the pressure to provide every opportunity for their children at an early age. They sign up for multiple extracurricular activities such as soccer, art and music classes. As a result, schedules get crammed with activities as parents try to give their children maximum leverage for success in life.

Howe and Chandra pointed out that sometimes the best schedule for children is an open one. This allows time for children to develop their own internal motivation and sense-of-self and to explore and discover the world. Learning is a life-long process that needs cultivating over time. When children develop a sense of self awareness they are able to manipulate and control materials at a pace that can be more appropriate for their own abilities, instead of adhering to an agenda or set of expectations dictated by adults.

Beverley Hartman and Karen Robinette discussed materials and supplies used in the classroom. Often overlooked, these items can be viewed as an “extra teacher” since they not only will appeal to a child’s interest but also foster an environment of collaboration in the exploration of different play and learning activities. Basic materials in the classroom—blocks, clay, paint, sand and water—can be interpreted in many ways, such as water forming a river in the sand area, or the unit blocks being built into the shape of the Golden Gate Bridge. Because there are no expectations for usage for these materials, children naturally explore many different functional and artistic interpretations. In this way, children interact with materials: shaping, playing and exploring, and formulating ideas of what the materials can be as well as concepts of how they relate to and impact their world.

Committed teachers are devoted to children’s development and are a pillar of support to families. They attend conferences to enlighten themselves, but also develop connections with peers who share the same vision. The conference was rewarding for the Bing teachers who attended, as they shared their experiences, met colleagues and were energized by the rich educational interactions.

AERA Conference
By Beverley Hartman, Head Teacher

“Innovation, without systematic change, is not enough,” asserted Darling-Hammond during her talk, “What Kind of Change Can We Believe In? Toward an Equitable System of Good Schools,” which the association honored with the 2009 Distinguished Contributions to Education Research Award.

The meeting, held April 30-May 4 in Denver, Colo., attracted over 13,000 education researchers from around the world. Darling-Hammond, the Charles E. Ducommun Professor in the School of Education, emphasized in her talk how an understanding of current educational research is essential for teachers to

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improve practice.

In her lecture, Darling-Hammond outlined the current state of education in the United States. She presented the circumstances that contribute to the nation’s increasing achievement gap and how the declining educational system impacts the health of our society. Darling-Hammond called upon the United States to face the systematic issues, including unequal school funding, segregation, tracking, problems with teacher education and distribution, and disparities in resources and experiences available to students. Darling-Hammond was resolute in her conviction that “this can be done.”

Countries that invest in education make gains, said Darling-Hammond, and many use educational research from the United States to determine their approach. Investment in high-quality preschool with highly prepared teachers was one of the ideas she advanced. Among the others:

• Improve the quality of teachers through more extensive coursework in content and content pedagogy,
• Raise teachers’ salaries,
• Offer service scholarships,
• Institute mandatory mentoring and high-quality professional development that supports systematic change,
• Equalize access to educational resources,
• Build a strong, diverse teaching force,
• Organize curriculum on higher-level thinking and performance skills,
• Invest in the transformation of high-need schools,
• Reframe accountability to emphasize growth and support for thoughtful school improvement.

A new book by Darling-Hammond, The Flat World and Education: How America’s Commitment to Equity Will Determine Our Future (Teachers College Press, 2010), is likely at the top of the must-read list for many researchers and educators. The opportunity to hear directly from leaders in education and to attend workshops focused on early education and child development makes the AERA annual meeting a worthwhile conference with lasting impact.

EVENTS AND INFORMATION

Family Concert with Gamelan Sekar Jaya

Stanford Pan-Asian Music Festival and Bing Nursery School presented a special family concert featuring Gamelan Sekar Jaya on Feb. 13, 2010 at the Dinkelspiel Auditorium on the Stanford campus. The ensemble, based in Berkeley, Calif., performed innovative work with the music and dance of Bali, Indonesia. The concert brought to life Bali’s colorful culture and powerful rituals. Special thanks to the Department of Music and Jindong Cai, Bing alumni parent and conductor of the Stanford Symphony Orchestra, inset, for organizing the special rehearsal performance.

Family Concert with Colibrí

Bing Nursery School hosted a free family concert featuring Colibrí with guest musician Saul Sierra in Center Room’s yard on June 8, 2010. Colibrí, Spanish for hummingbird, is a duo. Along with Sierra, a Bing parent, the duo presented lively, interactive musical journeys through Latin America. They used an array of traditional folk instruments and sang songs from many different countries, such as Bolivia, Chile and Mexico.

Me and Hana. These are the words about my stories. By Summer Y., 4 years 3 months
The prime purpose of being four is to enjoy being four—of secondary importance is to prepare for being five.

Each year Bing Nursery School invites parents to come speak with a panel of kindergarten experts about their child’s coming transition to kindergarten. “The purpose of this is to give you some information and help you feel more comfortable about sending your child off to kindergarten,” said Bing’s director Jennifer Winters as she welcomed parents to this past year’s Kindergarten Information Night on December 2, 2009.

**How a Bing Education Prepares Children for Kindergarten**

At the beginning of the program, Bing head teacher Karen Robinette spoke about the many ways in which Bing’s play-based, child-centered education prepares children to enter the world of kindergarten and beyond. “We believe that what we do here, in the nursery school setting, lays the foundation that children can later build upon.” She explained that open-ended materials and activities offered at Bing promote habits and dispositions that encourage a life of learning. “We want them to find learning rewarding, stimulating and we want them to have it be intrinsically motivating. ... Bing is carefully crafted for the kind of learning that these children need to be doing,” she said.

Children at Bing benefit from the freedom of choice and movement. They move freely throughout the indoor and outdoor space, stopping at places that pique their interest. Robinette explained: “We want children to pursue their passions and their interests and as you know and as I know, we learn the most when we pursue the things that we love.” That freedom, combined with the gift of time—long blocks of time to play—creates a setting ripe for discovery and learning.

Being a part of both a large class and the small group gathered at the snack table gives children the opportunity to develop their social skills. By participating in group life, Robinette explained, children learn to take turns, self-regulate, resolve conflicts, develop their coping skills, take on another person’s perspective and verbally express their needs, ideas and feelings—skills they will need to succeed in kindergarten. For many children, Bing is their first school experience. They learn how routines work, how to separate from parents and caregivers, resolve conflicts, follow simple directions, and toilet and dress themselves independently.

Robinette concluded by reminding the audience that skills developed in nursery school are just as important as skills developed at any time in a person’s life. “Just as first grade isn’t considered pre-second grade, nursery school shouldn’t be overshadowed by the upcoming skills that are more appropriate to the kindergarten,” she said.

Based on feedback from kindergarten principals and teachers, she said it’s clear that after a supportive, child-centered, play-based environment such as Bing children make successful transitions to any kind of kindergarten.

**The Prekindergarten Checkup**

Before a child starts kindergarten they need to have both a physical and a dental checkup. Lisa Chamberlain, MD, a pediatrician at Lucile Packard Children’s Hospital and an alumni parent, explained the checkup, which focuses on four domains: fine motor skills, gross motor skills, social-emotional development and language-literacy development. [See the sidebar with some of the questions that guide physicians assessing nursery school children’s kindergarten readiness.]

Of course not all nursery school-aged children have mastered all of the skills assessed in the checkup, and that’s OK. “You can have someone who is very linguistically gifted and has a hard time threading a needle. Skills can exist independently...so you really have to look at them discreetly,” Chamberlain said.

The only kindergarten requirement put forth by the California Department of Education is that children must be five years of age on or before December 2 of the school year.

The second part of the evening a panel of experts took questions from the parents. On the panel from Bing were director Winters, assistant director Beth Wise, head teachers Robinette and Nandini Bhattacharjya, and teacher Betsy Wise, head teachers Robinette and Nandini Bhattacharjya, and teacher Betsy Wise.

### Following are some of the questions that guide physicians assessing nursery school children’s kindergarten readiness as provided by Lisa Chamberlain, MD.

**Fine Motor Skills Development**

- Can the child do some writing, drawing?  
- Is the child able to use scissors?  
- Can the child trace basic shapes?

**Gross Motor Skills Development**

- Can the child jump, climb stairs and run?  
- Is the child starting to be able to use the monkey bars or other climbing structures that build upper body movements?

**Social-Emotional Skills Development**

- Is the child able to sit still for short periods of time?  
- Is the child able to listen to short stories?  
- Can the child follow instructions with two or three steps?  
- Can the child get along with peers and resolve some conflict?  
- Does the child recognize non-parental authority?

**Language-Literacy Skills Development**

- Does the child speak in six- to seven-word sentences?  
- Does the child speak fully and clearly? The child’s vocabulary should be too numerous to count. If the child is learning two languages equally, both should be developing equally.

**Five Components of Early Literacy**

- Does the child have print motivation? (Does the child enjoy books and want to spend time with books?)  
- Does the child know how to open a book? How to turn pages?  
- Does the child have phonological awareness? (Does the child hear and play with sounds?)  
- How are the child’s narrative skills? (Can the child describe things?)  
- Does the child have print awareness? (Does the child notice letters? Is he/she starting to learn the names of letters?)

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Koning. Guest panelists were Chamberlain, Marland Chancellor, MD, a family medicine specialist and current Bing parent; Mary Pat O’Connell, principal of L.M. Nixon Elementary School, located on the Stanford campus; and Nixon kindergarten teachers Jody Turner Harrier and Stephanie Han.

Some excerpts from the Q&A:

Q: How is the transition to kindergarten for most families?

Family medicine specialist Chancellor encouraged parents to see the transition to kindergarten as one piece of a child’s educational process. He encouraged families to think of learning as something that happens everywhere. “I think it’s important for us to not view different situations in life as being isolated. ... Learning opportunities occur not only in the classroom, but also at home and in the grocery store, and when you’re in the car going somewhere.” Their school might be changing but that is just part of their overall education.

Q: Are nursery school at Bing and kindergarten at Nixon very different?

Elementary school principal O’Connell explained: “One of our great challenges is getting parents to slow down and realize that, no, we’re not going to be teaching reading the first day. And that’ll be OK. We’ll still get there.” The academic programs are added over the course of the year, not all at once. The teachers at both schools meet the children at their developmental level. And whether they’re at Bing or Nixon, the teachers believe that for children, play is work.

Of course, there are some differences. “Because the children are entering the public school system, the expectations are not just ours to make,” said O’Connell. This means that sometimes kindergartners are asked to practice things that they may not have chosen. “We want children to be excited about the challenges they take on and the successes they have.”

Q: Should my child attend a “young fives” program or a kindergarten program?

It really depends on the child. Parents, caregivers and nursery school teachers know the child best. Families who have questions about their nursery school child’s readiness should contact the child’s nursery school teacher(s) to understand how the child functions in a school setting.

The Palo Alto Unified School District offers a “young fives program” for children who are age-eligible for kindergarten but are not ready to enter kindergarten. The program is designed for children who exhibit signs of immaturity or youngness that may prevent them from succeeding in kindergarten and future school years. O’Connell added, “Palo Alto now conducts assessments related to their young fives program. They prioritize and decide which children most need this program.”

Chancellor shared how he and his wife decided to send their not-yet-five-year-old daughter to kindergarten. Both they and her Bing teachers felt she was prepared. Chancellor admitted that the transition was a little challenging for his daughter at first, but that it quickly worked itself out. Now his daughter is thriving. Chancellor added, “I think Bing does an excellent job at preparing our children for kindergarten.”

Q: But is my child ready for kindergarten?

Parents should talk to their child’s nursery school teacher and their future principal. The vast majority of five-year-olds are ready to succeed in kindergarten and enjoy themselves.

Tips for Helping Children Successfully Transition to Kindergarten

- Talk to children about kindergarten as the date of entry draws near, but keep discussions as low-key as possible.
- If possible, schedule visits to their kindergarten classroom and meet their kindergarten teacher.
- If parents feel nervous about the transition, children will pick up on that feeling. Try to relax and remain positive.
- Once they’re in kindergarten, give them more free play time at home since there will be less at school.
- Don’t overschedule kindergarteners, especially at the beginning. Once they’ve settled into their new routine, perhaps focus on one or two activities.

Visitors from Butte and Shasta Counties

Thirty directors of preschools from the Butte and Shasta College Mentor Program toured the school in April 2010. Bing staff members pictured here are Jennifer Winters, director (back row, ninth from right), Beth Wise, assistant director (back row, sixth from right) and Parul Chandra, head teacher (back row, second from right).
The 21st annual Harvest Moon Auction was held on Nov. 14, 2009, and raised over $300,000 to provide financial aid for 20 percent of our students. “A Night of Good Fortune” was the theme for the auction and the proceeds are used each year to benefit the Bing Nursery School Scholarship Fund. As in past years, Helen and Peter Bing are strong contributors to the scholarship program with a generous gift of $50,000.

The event took place on Stanford’s campus at the Arrillaga Alumni Center’s McCaw Hall. Festive arrangements of Chinese umbrellas and large floating balloons transformed the room into an oriental ballroom. The food was catered by San Francisco’s Organic Chef Catering, whose Asian fusion flair added to the ambiance. As the company’s name suggests, the food was all organic, and plates, cups and other items were compostable.

Entertainment included Chinese lion dancers and drums, while music played in the background by Bing teacher, Todd Erikson, who was the DJ. We are grateful for the dedication and countless hours devoted by our parent volunteers to make the auction not only successful, but also highly enjoyable and elegant. Our Bing parents create a magical experience that begins with the planning of the event, the solicitation of donations and organizing every detail of this extraordinary fundraising event.

Auction attendees bid on exciting items during the live auction, which raised $30,000, including the Sharks Team Penthouse suite for 12, a private Stanford band performance, a precious handmade playhouse by Bing carpenter Wilhelm Grotheer and painted by teachers Betsy Koning and Stephanie Holson, and the ever-popular “Fund a Scholarship” — straight money donation.

Many wonderful events and parties were available including The Great Bing Campout, The Prince/Princess Tea with Bing Teachers, wine tasting parties, a Gatsby Roaring ’20s black-tie party, a night of mahjong, a Bollywood party and other generous donations of parents’ and teachers’ time and talent. We also appreciate the work of parents in each classroom putting together theme gift baskets that are very popular and successful.

We would like to express our appreciation to the auction chairs, Vivian Lufkin and Anne-Marie Romero and all of the Bing parents for their invaluable contributions. We wish to thank our talented auctioneers, Jeff Jonker and Nate Olmstead, for making the live auction come to life. A special thanks to all who donated, volunteered and participated in the event, and we look forward to seeing everyone again at this year’s auction, “Come Take A Magic Carpet Ride” on November 13, 2010. We have some wonderful events this year such as a night at the Tower House with the St. Lawrence String Quartet, children’s parties with Bing teachers, vacation getaways, beautiful children’s gift baskets and other items. We truly appreciate all parents’ involvement and support. It is what makes the Bing community so special.

Festive arrangements of Chinese umbrellas and large floating balloons transform the Arrillaga Alumni Center’s McCaw Hall into an oriental ballroom. Chinese lion dancers perform at the auction.

2009-2010 Annual Fund Report

Thanks to the contributions of Bing parents, friends and our staff members, we met our goal of $300,000 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 Kathy and Geoffrey Gurtner, Lisa and Glenn Solomon and Kim Bazar and Joon Yun and their committee members for their efforts and support. In 2009-2010, the participation of our current Bing families reached 60 percent. In 2010-2011, we are striving for 100 percent participation!

The annual fund is an important part of the school budget. The campaign helps us close the gap between tuition and the actual cost of delivering the exceptional programs we offer. We depend on this fund to support staff development, additional assistant teachers in each classroom, specialists and scholarships. No gift is too small or too large. Our goal is for every family to participate in supporting the school. Please join us as we maintain the excellence that makes Bing such a special place for young children. A big thank you to all.