

# connect

SUMMER 2010

## Looking up

**Leading research into  
the brain, development,  
and learning**



UNIVERSITY OF MINNESOTA

Driven to Discover<sup>SM</sup>

# Dear friends,



I AM ALWAYS INSPIRED by the breadth of research and knowledge we boast in the College of Education and Human Development. While our experts in education, social work, and family systems lead groundbreaking research in the social sciences, other faculty use physical sciences to explore what makes humans tick. How and why do we move, feel, and even think the way we do?

Take the area of cognitive development—the topic of this issue of *Connect*. Faculty from the Institute of Child Development and the Department of Educational

Psychology are taking advantage of world-class neurological testing available at the University, such as functional magnetic resonance imaging and electroencephalography, to advance understanding of developmental psychology and learning cognition. Others have developed the assessments that have become standard in the field of cognitive development. They collaborate with colleagues across the University, tapping into expertise in psychology, pediatrics, and other health sciences. Their work is a testament to the value of a Research 1 university, such as Minnesota, and of a college with the size, depth, and range of CEHD, and represents the college's No. 1 U.S. *News & World Report* ranking in developmental psychology.

I have been personally involved in Professor Megan Gunnar's work with the Minnesota International Adoption Project, featured in this issue. I am the parent of two adopted children—one from Peru and one from Paraguay—and our family is included in the project's database of adoptive families. We adopted one child when he was only two days old, while the other joined us after five months of foster care. This issue details Gunnar's research into children adopted from a variety of situations and her broader goal of helping their families and professionals support their healthy development.

In the end, her and other faculty members' discoveries in cognitive development can further education, understanding of family systems, and other social sciences. The ultimate significance, however, is to the children and families who will benefit. The value of our research is the difference it makes out in the world.

As we anticipate the start of the 2010–11 school year, I would like to invite you to come back to campus to see the great work of our faculty and our talented students. In the Community section of this issue, you'll find previews of Book Week in October and CEHD Reads in November—opportunities to join us and to hear from world-class authors. Don't forget about Homecoming 2010, either; a rundown of events can be found in the Continuity (alumni) section.

See you soon!

A handwritten signature in black ink that reads "Jean K. Quam".

Jean K. Quam, dean

## connect

Vol. 4, No. 3 • Summer 2010

### EDITOR

Diane L. Cormany  
612-626-5650, dcormany@umn.edu

### ART DIRECTOR

Nance Longley

### DESIGNER

Amy Bjellos, Designs by Daley

### WRITERS

Sarah Askari, Diane L. Cormany, Suzy Frisch, Brigit Martin, Heather Peña, Peter S. Scholtes, Andrew Tellijohn, Jenny Woods

### PHOTOGRAPHERS

Greg Helgeson, Leo Kim, Studio Tobechi, Dawn Villella

### ONLINE EDITION

[cehd.umn.edu/pubs/connect](http://cehd.umn.edu/pubs/connect)

### OFFICE OF THE DEAN

Jean Quam, *dean*  
David R. Johnson, *senior associate dean*  
Heidi Barajas, *associate dean*  
Mary Trettin, *associate dean*  
Lynn Slifer, *director of external relations*  
Steve Baker, *director of communications*  
Heather Peña, *director of alumni relations*

### DEAN'S ADVISORY COUNCIL

Anne Andersen, Will Antell, Geraldine Evans, Steve Geiger, Jennifer Godinez, Susan Hagstrum, Patricia Harvey, John Haugo, Dan Huebner, Thomas Jandris, Andrea Johnson, Timothy Keane, Terrance Kwame-Ross, Jennifer Marrone, Dorothy McIntyre, Michael McKasy, David H. Olson, Beth Patten, Natalie Rasmussen, Patrick Strother, Rajiv Tandon, Mary Tjosvold, Joseph L. White

### ALUMNI SOCIETY BOARD

Andrea Canter, Lisa Finsness, Barbara Stephens Foster, Tom Greve, Heather Vinge Hanson, Thomas Harding, Doobie Kurus, Ellie Meade, Carol Mulligan, Tex Ostvig, Jon Oyanagi, Jeannie Robertson, Bill Schrankler, Sara Zoff

Photo of Jean Quam by Greg Helgeson.

Connect magazine is published three times a year by the University of Minnesota College of Education and Human Development for alumni, faculty, staff, and friends of the college. Send correspondence to the editor, 105 Burton Hall, 178 Pillsbury Drive SE, University of Minnesota, Minneapolis, MN 55455. For address corrections, call 612-625-1310.

This publication is available in alternative formats upon request. Contact the editor at 612-626-5650 for more information.

The University of Minnesota is an equal opportunity educator and employer.

**COLLEGE OF EDUCATION  
+ HUMAN DEVELOPMENT**

**UNIVERSITY OF MINNESOTA**



# contents

## FEATURES

### 12 Ready, set, learn

Grooming executive function for school readiness

### 17 A successful start

Pathbreaking research on development among international adoptees

### 21 Mind matters

Discovering how the brain learns science and math

## DEPARTMENTS

### 4 community

What's happening around the college neighborhoods

### 10 colloquium

Building character, building community

### 25 connecting with emeriti faculty

Neal Nickerson: Teacher of principals

### 26 alumni update

Four alumni who define the Twin Cities human services field

### 31 compendium

Honors, transitions, in memoriam

### 32 continuity

Alumni news and events

### 35 commitment

Giving opportunities

**on the cover:** Anthony and his mom Jamalee take a break after helping professor Megan Gunnar research development among international adoptees. *photo by Dawn Villella*

The College of Education and Human Development is a world leader in discovering, creating, sharing, and applying principles and practices of multiculturalism and multidisciplinary scholarship to advance teaching and learning and to enhance the psychological, physical, and social development of children, youth, and adults across the lifespan in families, organizations, and communities.

Connect is printed on recycled paper containing 100-percent post-consumer content that is EcoLogo, Processed Chlorine Free- and Forest Stewardship Council-certified, and manufactured using biogas energy. This issue of Connect saved the equivalent of 1,046 trees and lowered air emissions by 15,476 lbs.

By using this FSC Recycled product, you are supporting the responsible use of forest resources.  
© 1996 Forest Stewardship Council A.C.



## New center to explore innovation in higher ed.

BY ANDREW TELLJOHN

**ALUMNUS TOM JANDRIS** has committed approximately \$2.5 million to establish a center that will support innovation in postsecondary education. The Thomas P. Jandris Center for Innovative Higher Education will foster multidisciplinary research in the areas of policy and finance; access, diversity, and equity; leadership; and teaching and learning.

The Jandris Center for Innovative Higher Education will bring together faculty across the University who pursue research related to higher education. The Department of Organizational Policy, Leadership, and Development (OLPD) and the Department of Postsecondary Teaching and Learning (PsTL) are providing joint leadership for the center.

Jandris says he hopes the University will become a leader in creating innovative research and disseminating ideas to meet the needs of educators and communities. The innovation could come from many areas, he says, including platforms for delivering classes, strategic partnerships that will allow for more efficient delivery of programs, or ways to better leverage intellectual property at universities.

Jandris, who is dean of the College of Graduate and Innovative Programs and vice president of innovation at Concordia University in Illinois, believes the terms innovation and higher education have become almost oxymoronic in an age when colleges and universities need to embrace changes in the way they deliver education. “Unless we create

some sort of a movement across the country for universities to once again live up to the notion that they in fact are the lighthouses of civilization in relationship to innovation and exploration and scholarship,” he says, “we will quickly lose our position as the authoritative leaders of the pursuit of knowledge. That would be an unfortunate thing.”

Faculty at the Jandris Center for Innovative Higher Education will also collaborate outside the University. “It’s very exciting. It’s not only removing barriers to collaboration but also proactively supporting collaboration, with an eye toward innovation,” says PsTL Chair Amy Lee, adding that she hopes the center will have a regional, national, and global impact on education.

Center leaders plan to name one primary research focus each year and facilitate partnerships that address that focus. These collaborations will enrich the center’s impact within the University as well as its outreach. “These partnerships between policy makers, community members, educators, and scholars really have the potential to enrich our students’ experiences in substantial ways,” says Rebecca Ropers-Huilman, incoming chair of OLPD.

Ropers-Huilman and Lee sit on the center’s executive board, which also includes University Associate Vice

President of Public Engagement Andrew Furco and representatives from outside constituents in higher education. David Arendale, from PsTL, and David Weerts, from OLPD, have been named co-directors of the center. They will execute its development and establish its mission and purpose in a number of areas. The center leadership was designed to cross departments and organizations, reflecting the fundamental commitment to collaboration, Lee explains.



Tom Jandris

Jandris says he plans to find ways to be involved in the center’s work, though he thinks highly of the officials running the program. “I’m not so presumptuous to believe that somehow my thoughts are the only thoughts,” he says.

*For a profile of Jandris, please see [cehd.umn.edu/Pubs/Connect/2010Spring/Higher-Ed.html#Jandris](http://cehd.umn.edu/Pubs/Connect/2010Spring/Higher-Ed.html#Jandris)*

## College offers new multicultural college teaching M.A.

**THIS FALL**, the college welcomes the inaugural cohort to its master of arts in multicultural college teaching and learning—the first graduate degree offered by the Department of Postsecondary Teaching and Learning (PsTL).

The degree is designed to expand the tools available to those who want to improve access to and success in education for traditionally underserved students. It will serve as preparation for careers in learning assistance centers, centers for teaching and learning, access programs such as TriO, or even in the higher education classroom. To date, the program has drawn students with service experiences in programs such as HECUA (Higher Education Consortium for Urban Affairs) and AmeriCorps, as well as people from across campus who are excited about teaching.

The multicultural teaching and learning degree teaches universal instructional design, which was initially developed to improve disability access to education. However its principals of learner-focused pedagogy, curriculum, and assessment that are adaptive to different modes of learning are applicable to all learners, says associate professor Karen Miksch, director of graduate studies in PsTL. “Multicultural, universal instructional design is simply good teaching,” she says.

Miksch says the PsTL faculty’s passion for and research into universal and multicultural instruction and demand for the program combined to spur the degree’s creation. The department surveyed higher education locales nationwide and received nearly 300 responses that indicated strong enthusiasm and need for the degree.

Through focus groups, program faculty also discovered strong demand for practical learning settings. As a result, the multicultural teaching master’s will require students to fulfill both a practicum and a yearlong internship. Coursework will include a number of required courses with PsTL faculty, as well as pre-approved electives in the college’s culture and teaching, higher education, and counseling and school personnel psychology programs.

**“Multicultural, universal instructional design is simply good teaching.”**

KAREN MIKSCH, PSTL

For more information on the multicultural college teaching and learning M.A. please see [www.cehd.umn.edu/PsTL/Masters/](http://cehd.umn.edu/PsTL/Masters/). A certificate is also offered.

### Taking the next step

**ON A RAINY MAY 13**, the College of Education and Human Development conferred about 1,300 degrees—many of them bachelor of science or master of education. Speaker Eric Jolly, president of the Science Museum of Minnesota, and actor, vocalist, and educator T. Mychael Rambo, who performed, helped make Commencement 2010 special for the graduates and their families and friends. Business and marketing education major Jennifer Owens provided the student address on the theme, “The mind is everything. What you think, you become.” During the ceremony, the college awarded Keith Lester, superintendent of the Brooklyn Center School District, with the annual Dean’s Outstanding Achievement Award.

Congratulations to the Class of 2010 and welcome to our newest alumni. Please keep in touch through our alumni website: [cehd.umn.edu/alumni](http://cehd.umn.edu/alumni)



CEHD  
BLOGS >>

FACULTY TRAVELED TO POINTS ACROSS THE GLOBE THIS SPRING AND SUMMER, CONTINUING THEIR RESEARCH AND TEACHING ACTIVITIES. A NUMBER OF THEM KEPT THE COLLEGE COMMUNITY ABREAST OF THEIR TRAVELS THROUGH ONLINE BLOGS AND OTHER MEDIA.



**AARON DOERING**, the Bonnie Westby Huebner Endowed Chair in Education and Technology, who was on leave this spring, began his latest GoNorth Arctic exploration in late April. Brant Miller, a doctoral student in science education, the Polar Huskies, and the rest of the GoNorth team joined him for a five-week-long exploration of Arctic Greenland. Read the team's trail reports and see their photos at [www.polarhusky.com/explore/trail-reports/week-09/](http://www.polarhusky.com/explore/trail-reports/week-09/)

## Legislative update 2010: A race not (yet) finished

BY RICHARD WASSEN

**DURING THE LAST MINNESOTA LEGISLATIVE** session policymakers and stakeholders intensified their focus on education and human development issues, emphasizing innovation, accountability, and reform. At the same time, federal oversight of local education programs has been increasing. For example, the federal Race to the Top initiative became a major political issue in this year's legislative session and ultimately failed as a vehicle for education reform in Minnesota. Unfortunately partisan politics seemed to dominate that discussion, and that many other policy issues were left unresolved.

However, other issues were resolved with assistance from college experts, and additional discussions were launched in a productive way. Those "races" will likely be finished in the future. Crafting legislation often takes at least two or three years.

Races that were completed:

**New standards** for physical education in schools

**State funding** for programs such as Minnesota Couples on the Brink, a divorce reconciliation service offered through the Department of Family Social Science

**Reforms** and innovations in early childhood education, including new criteria, funding streams, and progress monitoring for school readiness

A few examples of races started but not yet finished:

**Creating new systems** for teacher

and principal evaluation

**Expanding the roles** of counselors, school social workers, and youth workers in community-oriented schools

**Addressing the needs** of an increasingly diverse student population

**Preventing** bullying

**Implementing innovations** in teacher preparation

**Improving support** for students in alternative learning programs

**Changing** how schools are financed

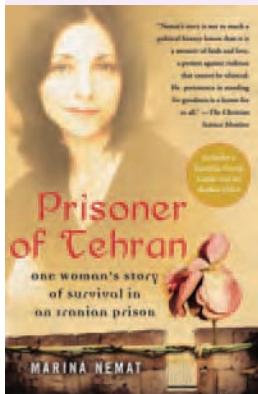
**Determining valid indicators** of student performance through new assessment and testing models

Serving legislators who want research translated for use in the legislative process can be complex but is a process to which the college is committed. The college has created new centers, improved outreach, and is fine-tuning communication to improve the outreach process.

Ultimately, it's clear the payoff for tapping college expertise will be higher quality laws and policies in Minnesota systems of education and human development. For more information, go to Minnesota's user-friendly legislative website, located at [www.leg.state.mn.us](http://www.leg.state.mn.us). A summary of the session can be found at [www.house.leg.state.mn.us/sessionweekly/](http://www.house.leg.state.mn.us/sessionweekly/).

Contact Richard Wassen, legislative liaison, at [r-wass@umn.edu](mailto:r-wass@umn.edu), if you have questions.

## Shared reading puts Iran in context



**CEHD READS RETURNS THIS FALL** with the selection *Prisoner of Tehran*, a memoir of a teen girl's imprisonment in Iran after the 1979 Revolution. Alumni and friends of the college are encouraged

to read the book and attend a public presentation by its author Marina Nemat on Nov. 10 at Northrop Auditorium.

All incoming CEHD undergraduates will study *Prisoner of Tehran* in their First Year Inquiry (FYI) classes. The book is compelling and offers perspective on a geographic area that is of ongoing political importance, says Kris Cory, a coordinator of the college's First Year Experience (FYE) programming in the Department of Postsecondary Teaching and Learning. Nemat was incarcerated in Evin, a notorious prison that continues to make the news today. Three Americans arrested while hiking in northern Iran have been held there for one year, while North Dakota journalist Roxana Saberi was imprisoned there last year.

Cory explains that the book has additional relevance as a coming-of-age story; Nemat was only 16 when she was arrested. "Her age and questions of identity and responsibility will be easy for the students to connect to," Cory says. "She essentially made the transition from childhood to adulthood over the course of the book."

Nemat's experience of political upheaval, repression, and resettlement should also resonate with a number of incoming CEHD students. The book explores the circumstances that force people to leave their country and the level of choice they have in where they settle, says Cory. She adds, "Students who are immigrants have a different relationship with those questions than other students do." She hopes the FYI classes allow students a safe space to share their own experiences, just as Nemat eventually did.

As with past FYI books, *Prisoner of Tehran* addresses the shared inquiry, Can one person make a difference? After 20 years of silence about her detention and torture, Nemat felt compelled to share her story. The idea of speaking and writing to make a difference emphasizes effective communication, one of the University's core learning outcomes for all first-year students.

The book also explores themes of diversity—another central outcome—as Nemat forges relationships across religious and political lines. Developing community with classmates from different backgrounds is an integral component of the college's FYE, Cory notes.

Nemat will donate her speaking fee to the Center for Victims of Torture. On Nov. 10, she will lead the FYI class. Public events include a reading from Nemat's new book, *After Tehran*, at Magers & Quinn Booksellers, Minneapolis, on Nov. 9, and a lecture followed by questions during the college's Nov. 10, 7:30 p.m., event at Northrop Auditorium. For additional information, see [cehd.umn.edu/reads/](http://cehd.umn.edu/reads/)

## >> CEHD BLOGS

**IN MUCH WARMER CLIMES,** social work associate professor **Liz Lightfoot** brought a group of 18 graduate students to study in Namibia, where she had spent a year as a Fulbright Scholar. The group visited social workers in governmental and nongovernmental organizations who work in the area of social development, as well as social development projects run by local people in rural areas. The group also took time to enjoy Namibia's famed wildlife at Etosha National Park and camping in a Bushman camp. To see the account of their adventures, please see Lightfoot's blog: [minnesotanamibia.blogspot.com](http://minnesotanamibia.blogspot.com)



### TEN YOUTH STUDIES

undergraduate students and four youth development leadership graduate students, led by social work assistant professor Ross Velure Roholt, spent more than two weeks in Northern Ireland. In her closing remarks on the trip, student Joyce Strand commented, "One of the people we were able to speak to on this trip, told us lighting a candle is better than sitting in the dark. I think youth can

## CEHD BLOGS >>

hold that candle and they are looking for a source of fire. I am coming back from this trip with a figurative box of matches." For more of the students' observations and photos, see their blog: [www.northernirelandyouthresearch.blogspot.com/](http://www.northernirelandyouthresearch.blogspot.com/)



**CONNIE MAGNUSON**, coordinator of the recreation, park, and leisure studies program, couldn't exactly blog from her travels in Kenya. She and a group of 13 students were far from Web access, and even electricity, as they climbed Mt. Kenya and lived with families in Kambi. The students, faculty, and expert guides presented lessons on such topics as the impact of global climate change, wildlife preservation, political involvement in wilderness management, and wilderness and minority cultures. In Kambi, students helped prepare a newly built classroom for 6th-grade students and taught some of them the fun of flag football.

*To find out more about what CEHD faculty are up to, visit the newly revamped college website, [cehd.umn.edu](http://cehd.umn.edu).*

## Crafting a new vision for teacher education

BY MISTY SATO

**COLLEGE FACULTY AND STAFF**, along with partners in the preK–12 education community, are re-envisioning the college's teacher education programs with the ultimate goal of improving student learning. The University of Minnesota is one of 14 higher education institutions across Minnesota and the Dakotas working with the Bush Foundation in a 10-year partnership aimed at reducing disparities in student achievement. The foundation has committed up to \$4.5 million to support the college's Teacher Education Redesign Initiative (TERI) as it transforms the way teachers are recruited, prepared, and supported in their new careers.

To date, TERI has brought together more than 70 faculty and teaching staff from the University and members of five school districts in the metro area. TERI members spent the 2009–10 academic year developing recommended approaches to recruiting and admissions, curriculum, candidate assessment, partnership, and research processes. A number of the program's key elements will be piloted during the upcoming academic year, and the redesigned teacher preparation program will admit its first candidates in May 2011.

The college is realigning its recruitment and admissions strategies to attract and support more teachers of color

who reflect a rapidly diversifying student population. Through partnerships with school districts, the college will be able to develop long-term engagement in schools and provide high quality mentoring experiences for prospective teachers. The result will be a stronger connection between the teacher preparation curriculum and the real work of teaching in schools.

These partnerships will also support the practicing teachers in their efforts to better meet children's cultural and academic needs. "Incoming teachers will have an increased awareness of the needs of all students, families, and community—and have the tools to meet these head on," says Julie Ha Truong, community schools manager for Brooklyn Center Schools 286, which is a TERI partner district.

TERI members are also developing more reliable ways for faculty and school-based



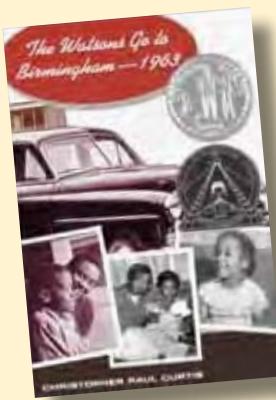
mentors to examine candidates' teaching effectiveness. This will include new measures to monitor and assess the actual performance of teacher candidates while they are in the college's program. Program staff will follow up with graduates in their first years of teaching to determine how the students in their classrooms perform on standardized achievement tests. With this performance data, the CEHD programs will be able to work with partner districts to provide more targeted professional support for our graduates.

CEHD annually prepares between 370 and 400 teachers for Minnesota licensure. Currently, to enroll in most CEHD teacher licensure programs, candidates must already have a bachelor's degree in their subject matter area or elementary education and have completed 100 hours of volunteer work in school settings. Teaching candidates then complete a one-year professional licensure program and can earn a master's degree in education.

Through TERI, the college will continue to offer this alternative pathway into teaching through the post-baccalaureate model. The candidate experience, however, will be different. The CEHD teacher preparation programs will maintain a deep focus on subject matter teaching while strengthening future teachers' ability to attend to the cultural differences and strengths of their students, support English language development, and develop skills to identify the specific learning needs of the students they will teach on a daily basis.

## Celebrating 70 years of Book Week with Christopher Paul Curtis

**THE COLLEGE IS CELEBRATING 70 YEARS** of Book Week this fall with an October 21 presentation by renowned children's author Christopher Paul Curtis. Curtis won the Newbery Medal and the Coretta Scott King Medal in 2000 for *Bud, Not Buddy*. A number of his books have garnered Newbery Honors and additional Coretta Scott King Author Awards, namely *The Watsons Go to Birmingham- 1963* and *Elijah of Buxton*; the latter also earned Scott O'Dell Award honors in 2008.



Book Week demonstrates the college's commitment to children's literature and its importance to the development of literacy and learning skills. "Kids who read get

smarter," says Lee Galda, co-chair of Book Week and a children's literature professor in the Department of Curriculum and Instruction's literacy education program.

Book Week is an opportunity to examine the best children's books of the year and to learn from a top writer in the field. Curtis will give a 6:30 p.m. lecture at McNamara Alumni Center, which will be followed by questions, a book signing, and a reception. He will also sign books beforehand. The presentation should prove useful to those who teach Curtis's books. "We know that there is a connection between knowing how the

book is written and student learning," explains Rebecca Rapport, co-chair of Book Week and a lecturer in children's literature.

Curtis frequently interweaves historical events with fictional accounts of African-American families. For example *The Watsons Go to Birmingham-1963* is an alternately hilarious and deeply moving novel set during the violent summer of 1963. His latest book in progress, the *Mighty Miss Malone*, tells the story of Deza, to whom we were briefly introduced in *Bud, Not Buddy*. Curtis says that while it took some time to capture the character's voice, "when I finally caught her, I couldn't help falling in love with this bright, tough, kind, and loving child." Curtis says he hopes to finish the novel soon, "because if anyone deserves a break it's Deza."

Prior to Curtis's lecture, curriculum and instruction faculty and graduate students will present reviews of some of their top picks from children's literature published during 2010. These books will be on display for perusal by teachers, librarians, and others with an interest in literature for young readers.

To register and for a complete schedule of book displays and author appearances, please see [cehd.umn.edu/BookWeek](http://cehd.umn.edu/BookWeek). Questions may be directed to [rappo001@umn.edu](mailto:rappo001@umn.edu). Book Week is sponsored by the Ruth Mitchell endowment, the Department of Curriculum and Instruction, CEHD, the Red Balloon Bookshop, and the Children's Literature Research Collections of the University of Minnesota Libraries.

# Building character, building community

INTEGRATING CHARACTER LEARNING WITH CURRICULUM YIELDS BENEFITS FOR STUDENTS AND SCHOOLS BY SARAH ASKARI

## EVERY ELEMENTARY SCHOOL

**CLASSROOM** is a small community unto itself, with its own unique culture, generated by students from diverse backgrounds. Creating the best climate for learning amidst so many developing personalities requires direction. How can teachers ensure their students value personal achievement, group cooperation, and mutual respect?

Professor **Andrew Furco**

(organizational leadership, policy, and development), the University's associate vice president for public engagement, is researching how infusing character education into a standard language arts curriculum might help. As it turns out, character education—teaching children to conduct themselves with respect, integrity, responsibility, and civic awareness—can lead to better learning environments and may help students maintain positive behavior as they age.

Instructing children on positive character traits is not a new idea, but traditional approaches have not been widely successful. "Character education programs have not been very effective because they have been delivered and presented as a separate curriculum," Furco says. "I would see teachers saying, 'Put away your math books; it's now time to do character education.' After spending about 10 minutes on character



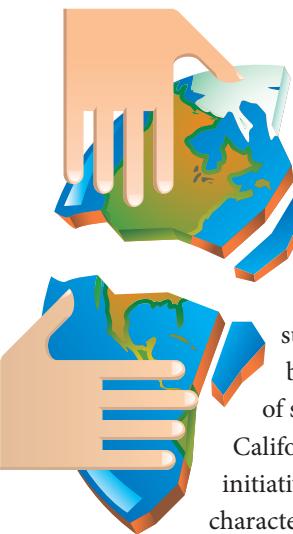
issues, they would then say, 'Now it's time for reading.' "

In 2002, Furco was invited to join a group of K-12 educators in Alameda County, California, his former home state, to develop Project Heart, Head, Hands (H3). Funded by a grant from the U.S. Department of Education, the program aligns character-based lesson plans with existing language arts curriculum. H3 also emphasizes social-emotional growth and character development through service-learning. Students organize book drives, food drives, and recycling programs—projects that make a positive difference in their communities.

"A lot of character ed. programs have students reading and talking about

responsibility, cooperation, and problem-solving, but students don't typically get a chance to apply all these things," Furco says. "Service-learning was put in as an experiential component, so that they could practice these traits. The community-based projects challenge students to demonstrate responsibility, show integrity, be a good citizen, and problem-solve."

Parvin Ahmadi, who has been assistant superintendent at Fremont Unified School District, where H3 was implemented across almost all of the schools, agrees with Furco's assessment. "H3 put the social-emotional needs of the students on the forefront," she says. "Service-learning became an important way to connect to others and the



community—not just talking to students about their own character, but showing them how they could impact the community.” This summer, Ahmadi became superintendent of schools in Pleasanton, California, where a citywide initiative is promoting six character traits from the curriculum.

Between 2003 and 2006, the Project Heart, Head, Hands researchers gathered data on more than 6,000 third through sixth graders in 31 schools, with some studying the curriculum and others serving as non-H3 control groups. They measured parental involvement, teacher perception of school climate, and academic and behavioral achievement. They also assessed retention of character assets—personality traits associated with positive youth development and success in school.

To measure character asset retention, researchers designed a survey based on the Search Institute’s Youth Development Asset instrument that asked students to indicate whether they agreed with such statements as, “I see many positive things in my life,” and, “When I fail at something, I keep trying until I get it right.” Students were then asked to rate how frequently they act on each of the 25 statements.

During the first phase of the research, Furco and his colleagues found that elementary school children progressively lose character assets as they age, with third graders reporting the highest levels

of assets and sixth-graders the lowest. However, this does not necessarily mean that students become less responsible, respectful, or honest, Furco points out. He attributes the drop in character assets to younger children’s tendency to select responses that they think will please their teachers and parents. “As children grow older, they become a bit more discerning and are more likely to offer responses that more closely reflect how they really feel,” Furco explains.

The results reveal that students who participated in the H3 program were better able to retain their character assets than those in the non-H3 control group. “The character assets of H3 students still dropped over time,” Furco says, “but not as much as if they had not been involved in the program. The study also found that the more H3 lessons the students were exposed to, the smaller the drop in character assets from the beginning to the end of the school year.

The H3 program changes the way students communicate, says Linda Anderson, principal of Oliveira Elementary School, where the combined character education/language arts curricula has been in place for seven years. “The verbiage, the language—you can hear it in the kids. They’ll stop, think about what they’re going to do before they do it. We’ve seen an increase in their social awareness and using words to solve problems.” Anderson was H3 site administrator when the researchers tested the curricula at Oliveira.

Teachers have also observed a change in school climate relative to the H3 curriculum. Researchers surveyed the level of community, trust, and respect shared within the teaching staff and

between teachers and the administration.

“There was a significant difference between H3 and non-H3 schools,” Furco says. “While the teachers in the control schools reported no change in the school climate scale over the course of the school year, the H3 teachers reported a positive change in school climate.”

Today the H3 program reaches an estimated 25,000 students over 50 elementary schools. Furco and the other researchers are finishing a second three-year study testing a new group of schools using the H3 curriculum to examine whether the phase one study findings continue to hold true.

Furco is designing a separate research project to compare how preparation programs in a number of different countries prepare future teachers to use service-learning in the classroom. A national study conducted by Jeffrey Anderson of Seattle University and Joseph Erickson of Augsburg College found that only 37 percent of U.S. teacher preparation programs provide this training. As director of the University’s International Center for Research on Community Engagement, Furco is replicating Anderson and Erickson’s study on a global scale “We’re trying to figure out the extent to which teachers coming into the field are prepared to use service-learning in their classrooms.”

#### **For more information:**

Andrew Furco  
[afurco@umn.edu](mailto:afurco@umn.edu)  
 612-624-1562



# ready, set, LEARN



## RESEARCHERS EXPLORE CONNECTIONS BETWEEN EXECUTIVE FUNCTION AND SCHOOL READINESS

BY SUZY FRISCH

**EXECUTIVE FUNCTION MAY SOUND** like the stuff of the boardroom, but its most important role may reside in the elementary classroom. Its absence is obvious in story time when a kindergartener cannot sit still or during instruction as a student blurts out comments when others are speaking. For some students, underdeveloped executive function can contribute to challenges with problem-solving or with transitioning between learning tasks.

Known as the CEO of the brain, executive function is an umbrella term for a set of skills surrounding goal-directed

Philip Zelazo instructs Faith, 5, to match shapes or colors for the Dimensional Change Card Sort, which he developed for children.

behavior and self-control—the purposeful control of thoughts, actions, and emotions. Put in everyday terms, executive function often involves mindfully doing the opposite of what you're naturally inclined to do, explains Stephanie Carlson, an associate professor in the Institute of Child Development (ICD). That might mean acting shocked when someone throws you a surprise party, even though you already knew about it, or being gracious when receiving a gift you really don't like.

For children, executive function governs the connection

between knowing what to do (or not do) and actually controlling their behavior. Young people develop the relevant skills from late infancy through early adulthood. The preschool years are an especially critical time for children to hone their executive function ability, researchers report. And those who lack executive function skills face an uphill battle in school readiness and achievement—often failing to thrive because they can't sit still, listen to teachers, and focus on learning.

"Children make the most striking advances in the preschool period. It really improves drastically," notes Carlson, who runs the Carlson Child Development Lab, which uses behavioral, neuro-imaging, and cross-cultural methods for examining children's social and cognitive development. "If we can help 3- to 4-year-olds get up to speed in executive function, they will be on a more level playing field with their peers when they start school."

### Getting ready for school

Creating new ways to assess executive function in children and identify lagging development has long been the focus of both Carlson and Philip Zelazo, the Nancy M. and John E. Lindahl Professor in ICD and head of the Zelazo Lab. Each of the two professors came to the institute in 2007, when they established the Developmental Social Cognitive Neuroscience Lab.

Collectively Carlson and Zelazo have bolstered the college's research and expertise in child cognitive development, especially related to the emergence of executive function. Zelazo is credited with a foundational approach for assessing goal-directed behavior in children, as well as connecting neuroscience with cognitive development. Carlson is creating a standardized set of assessment tools for executive function skills, which can be difficult to identify. Early childhood educators, schools, and other child development specialists could use the tools to screen for school readiness.

The study of executive function and its effect on school readiness is critically important, Zelazo says. It's becoming recognized as "an important predictor of many real-world developmental outcomes, like school achievement or behavioral problems. In many cases it's a more important predictor than intelligence," he says. "For early school performance, being able to sit still and pay attention to the teacher are more important determinates of success than

being smart."

It's crucial to intervene with children during their preschool years so they can prepare for school, says Scott McConnell, a professor of educational psychology and affiliate of the Center for Early Education and Development. School readiness means different things to different people, McConnell says, but overall it's multidimensional, covering intellectual, social, and behavioral skills, including executive function and self-regulation, that equip children to learn.

McConnell helped start the 500 Under 5 program, now part of the Northside Achievement Zone, which helps children in two North Minneapolis neighborhoods prepare for school. The program utilizes community resources for early childhood education and assessments that help caregivers understand skills in which the child may need help, as well as tools they can use at home—especially in the areas of language and literacy.

"We describe it as an effort to knit together existing community resources and improve and expand where needed," McConnell says. "Then families have an array of services available from birth through kindergarten that are likely to promote their development in ways that help their school readiness."

Though McConnell believes it's never too late to help a struggling child, steering youth onto a path of success is more likely if the intervention comes earlier. "If children arrive at kindergarten without essential skills, it gets harder to



Faith is fitted with an electroencephalography net that tracks brain activity as she exercises executive function.

intervene,” he says. “There are skilled teachers that can be helpful to kids if they are identified early on. But these are not things that kids just grow out of.”

Those early school years are vitally important because research shows that students who don’t acquire age-appropriate reading skills in kindergarten through second grade tend to perform below their classmates as they proceed in school. In fact, struggling readers in third grade tend to perform more poorly than their peers on into high school, McConnell adds. The earlier teachers, parents, and early childhood professionals assess young children and their executive function abilities, the quicker they can help them obtain these necessary skills and get ready for school.

### Training executive function

During a career focused on psychology, brain development, and neural function, Zelazo has broken significant ground on the understanding of executive function and when and how it develops. One important consequence of forming executive function skills is the ability to engage in goal-directed

Zelazo also assesses cognitive development by having children react to different images on a computer screen.



problem-solving. Those with strong executive function can plan successfully, keep their mission in mind, and act on it when the time is right, even when the environment or instructions change.

Zelazo developed a now widely used test to determine how well children apply executive function to goal-directed problem-solving at different ages. Called the Dimensional Change Card Sort, the cognitive test asks children first to sort a stack of picture cards by color—a picture of a red rabbit in one pile and a picture of a blue boat into another, for example. Then, midway through the test, the assessor will change the task and ask the child to sort the pictures by shape instead.

A typical 3-year-old will have trouble switching their thinking and continue to sort by the original rule, even if he or she can repeat the instructions back correctly. A 4- or 5-year-old typically can adjust and follow the new rules. Zelazo chalks up the improvement to developmental leaps in self-reflection that usually occur around age 4. These leaps help children recognize that they know two different ways to sort the cards, which in turn allows them to decide deliberately which rules to use.

Zelazo pairs this cognitive research with studies of the brain itself to predict whether a child will do well on executive function assessments. He uses electroencephalography to study executive function, tracking changes in electrical activity on the scalp from brain activity. His other neuro-imaging techniques locate brain correlates of executive function by monitoring changes in blood flow as children of different ages engage in executive function tasks.

Part of Zelazo’s research involves training children in the process of reflection and rule use. After some training, he measures their performance and records their neural activity to see whether they improved compared to tasks in which they were not trained. “So far our work has been really



Stephanie Carlson tells Aidan, 4, the story of *Planet Opposite*, where everything is topsy turvy, to prepare him for the kind of flexible thinking called for during the Less is More cognitive task.

encouraging in that it does seem possible to facilitate the development of executive function," he says. "It could be the case, though this hasn't been studied yet, that this period of development when executive function and the relevant brain regions are undergoing very rapid changes, that there is a window of opportunity for intervention."

### Fantasy land

Carlson and her team are working on an assessment tool that educators could eventually use for gauging school readiness. Based on Zelazo's Dimensional Change Card Sort, children complete a task and keep doing increasingly difficult sorts. Participants continue moving up to higher levels until they get stumped. "It's like an IQ test in that it establishes the child's ceiling level," says Carlson.

Carlson also explores the positive link between pretend play and executive function. She has found that children with proclivities toward make believe tend to have high executive function skills. In a correlational study involving 100 children, Carlson's researchers ran a battery of tests on 3- and 4-year-olds coupled with pretend play measures. The children who were fantasy-oriented scored highly on their executive function assessments, regardless of IQ.

"Strong pretenders understand the boundary between pretend and reality and are also good with executive function, where you are playing around with boundaries," says Carlson. "We think that pretending is really one of the key ingredients to executive function development. And the experimental,

observational, and correlational evidence really backs that up."

In another assessment of pretending and executive function, researchers asked children to play a game with a stuffed animal. One tray had five pieces of candy while another tray had two. The children were told that the tray they picked would go to the animal, and they would get the other tray. Even if they were reminded halfway through the game, the 3-year-olds would continually point to the tray with more candy, giving the bigger portion away. But the 4-year-olds would usually have a light-bulb moment when they realized that they needed to point to the tray with the smaller amount of candy to receive the larger amount. Carlson found that 25 percent of her 3-year-old subjects passed the test compared to 65 percent of the 4-year-olds.

Next, the researchers read a story to some of the children called *Planet Opposite*, where everything is topsy turvy, to see if hearing about an imaginary world would help them get into a more flexible state of mind. Other children heard a more straightforward story. In this study, Carlson and graduate student Rachel White found that 60 percent of the 3-year-olds who listened to the *Planet Opposite* story passed the candy/animal assessment compared to 20 percent of the kids who heard the straightforward story.

This strong link between pretend play and executive function, as well as social skills, gives teachers tools when working with children or students who are lagging behind, Carlson says. Improving one of these areas can have a strong impact on kids' ability to learn. "I like the idea of trying to



Aidan learns that to keep more candy, he has to give a larger quantity away to the elephant. Reading *Planet Opposite* before this test helps most children perform better.

infiltrate the system from many different angles," she adds. "You can work on one area like pretend play, and it will have positive, reverberating effects on other areas like social skills or executive function. That's important, and it can make a big difference for students."

### Field studies

Carlson and Zelazo are teaming up with others from the college to study executive function in preschool-age children living in stressful environments. Working with Ann Masten, Distinguished McKnight University Professor in ICD, the professors will study 4-year-olds staying at the People Serving People homeless shelter to determine if guidance during an activity can help them enhance executive function. It's an important group to study because Masten's research has shown that children enduring poverty and stress are susceptible to poorly developed executive function, Zelazo says.

The study will compare outcomes for children who receive the training compared to those who don't. They want to see if a relatively brief intervention early in development can have long-term effects and cascading consequences for functioning in other areas. "A small change at just the right time sets children on a different trajectory and developmental pathway, and it could have a really large effect down the line," Zelazo says.

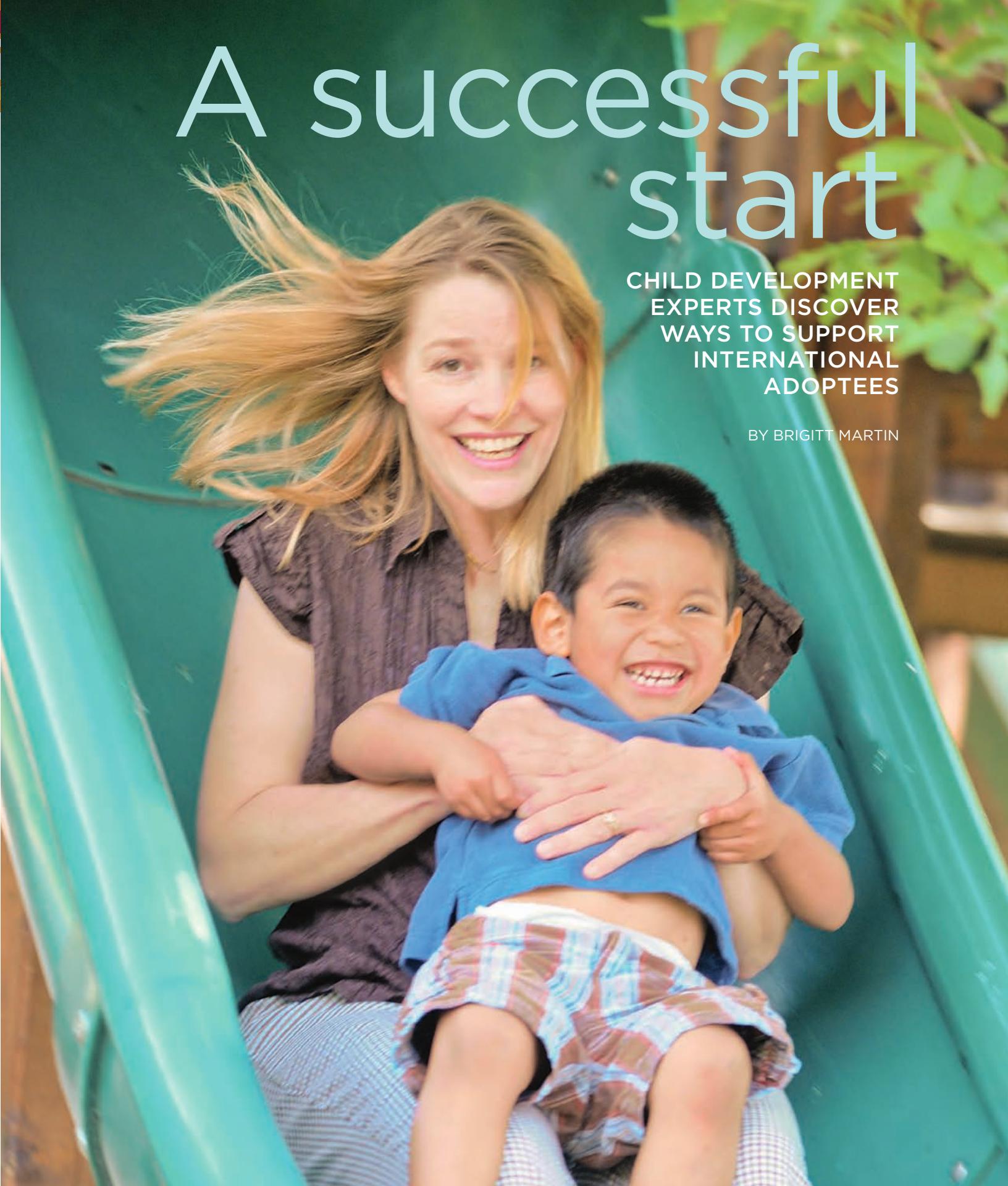
Another reason to tackle executive function and its development: Those who have childhood onset disorders,

including conduct, autism spectrum, attention deficit hyperactivity, and obsessive-compulsive, often have poor executive function, too. "By looking at atypical development we stand to learn a lot about typical development—and then we can help kids and families," says Carlson. Concurrently, she's interested in studying resilient children to determine how they overcome their difficult environments to develop strong executive function skills.

The research potential for executive function seems endless. Zelazo is investigating the impact of mindfulness training and how it affects students' executive function and achievement in the classroom, while Carlson is doing separate research projects on the impact of nutrition and bilingualism on executive function development. Children from bilingual families, who often come from lower socio-economic backgrounds, typically have strong executive function skills, Carlson notes. That's because they must be flexible in switching between two languages, and they understand that an object can be defined by words in different languages that have the same meaning.

Research like this will help Zelazo, Carlson, and others continue to discover the best ways to measure and prompt the emergence of executive function. They hope their findings will help parents, teachers, and others to know when and how to intervene when necessary and get students on the right track to learning. ●

# A successful start

A color photograph of a woman with blonde hair, smiling and holding a young boy. The woman is wearing a dark purple short-sleeved top and light-colored pants. The boy is wearing a blue t-shirt and plaid shorts. They are outdoors, with a green wooden structure visible in the background.

CHILD DEVELOPMENT  
EXPERTS DISCOVER  
WAYS TO SUPPORT  
INTERNATIONAL  
ADOPTEES

BY BRIGITT MARTIN

**THE “NATURE VS. NURTURE” DEBATE** has raged for ages, and all for naught. Today experts from the biological and behavioral sciences agree that the dichotomy is false: Even before we are born our genes interact with events and experiences in our environment to guide our physical, emotional, and cognitive development.

An interdisciplinary team of scientists and clinicians in the Institute of Child Development (ICD) and across the University are asking, what is the impact of these kind of pre-natal experiences? What about influences in the first year or two after birth? How can children rebound after periods of deprivation, abuse, or neglect?

These researchers are studying the developmental effects of “brain insults,” with the goal to promote the healthy growth and development of children who have suffered adversity in their early years. Brain insults may be caused by a lack of normal stimulation, such as the comfort of human touch or the sound

Megan Gunnar’s (left) pathbreaking research into international adoption and child development helps adoptive parents such as Jamalee best support their children.



of spoken language, or the presence of abnormal stimulation like in-vitro exposure to stress, alcohol, or drugs. Nearly 80 percent of children adopted outside of the country by Minnesotans will have spent some or all of their lives in orphanages or other institutions and suffered some of these kinds of brain insults.

Minnesota has one of the highest international adoption rates per capita in the United States—where 22,000 children are adopted from overseas annually, according to the Centers for Disease Control. Because of the concentration of internationally adopted children, members of the University’s Minnesota International Adoption Project (MNIAP) have painstakingly developed a database of adoptive families who are willing to participate in research exploring resilience to adversity in pre-natal and early childhood stages. MNIAP focuses on the cognitive and psychosocial development of children who were adopted outside the United States.

MNIAP’s principal investigator, Megan Gunnar, a Regents and Distinguished McKnight Professor in ICD, is recognized worldwide for her insights into the long-term effects of stress in early childhood on emotional and cognitive development. Gunnar says that the goal of the MNIAP is two-fold: to help internationally adopted children overcome obstacles to healthy development by understanding the brain and behavioral changes associated with early institutional care; and to share findings with agencies, professionals, and parents to help them successfully support this growing population.

For more than a decade, MNIAP has been capturing important information about internationally adopted children and their families. According to its New Arrival Study (NAS), the types of families who adopt children from abroad have remained stable over the past five years: Around 95 percent of participants report they are caucasian, married (88 percent),

college graduates (80 percent), and earn more than \$76,000 per year (74 percent). Countries of origin for the children have shifted, however. While adoption rates from Korea and Eastern Europe remain high, the number of children from China has dropped significantly, while the largest number of children now comes from Ethiopia.

### **Stress and the child**

Unfortunately, the NAS also shows a recent trend toward children being older at adoption. Fewer kids reach their families in the first six months of their life; instead about one third are 18 months or older (compared to one-fifth of children a few years ago). This is significant because, says Gunnar, “being older at adoption presents additional transition challenges to parents and children.”

In the first year of life, caregiver responsiveness to a baby’s distress is vital, she says. To measure stress, Gunnar primarily examines and compares the levels of a blood-borne hormone called cortisol in saliva samples collected from internationally adopted and locally born and raised children. By the end of the first year, children in secure relationships are unlikely to produce increases in cortisol when they are upset, whereas children in insecure relationships are likely to show increases in cortisol.

Researchers in Gunnar’s “Spit Lab”, as it is jokingly referred to, have found that cortisol promotes healthy development when it is in its non-stress mode and supports the mind and body’s adaptation to demands brought on by stress. Recurring stress seems to suppress basal levels of cortisol, negatively affecting a child’s engagement with the environment and increasing the risk of poor developmental outcomes.

In fact, Gunnar has observed that delays in behavioral development follow the same pattern as delays in physical growth. Children in institutional care lose about one month of linear growth for every two to three months in institutional care, and they show large delays in behavioral development as well. When they are adopted, these children make tremendous rebounds in both physical and behavioral development. However, some post-institutionalized children who have suffered chronic stress can have a harder time focusing, sitting still, and succeeding in school. The question that Gunnar and her team are trying to address is whether chronic stress

exposure before adoption may prompt later problems with regulating stress and lead to behavioral and cognitive challenges long after adoption.

### **Genetics and the resilient child**

As director of the Cognitive Developmental Neuroimaging Lab, ICD associate professor Kathleen Thomas explores the development and neural bases of learning, memory, and attention from infancy through early adolescence. She is midway through a five-year study with Gunnar and MNIAP exploring the effects of early deprivation on later cognitive and brain function. “We are trying to understand why some kids thrive but others struggle with behavioral issues, learning, in their family life and so on,” Thomas says.

Thomas uses diffusion tensor imaging and structural and functional magnetic resonance imaging (MRI) technology to view the brain’s neural connections at work as children perform learning and attention tasks. Preliminary results suggest poorer task performance and differences in brain activity in children who have experienced deprivation, even after more than eight years in their adoptive homes. Previous research has found that internationally adopted children who have suffered brain insults often experience delays in acquiring language and social skills and may struggle to concentrate or form parental attachments.

However, Thomas is finding that those children with a protective variant of a gene called BDNF—which is essential to brain development—may be better able to adapt their brains. If the protective variant of BDNF helps children be more resilient following exposure to adversity, then Thomas hopes that children without that variant could be identified early on and channeled into intervention programs.

“One way of helping to identify kids at higher risk and provide more support to them is to focus on the ones who show less resilience. Maybe then we can promote their positive growth and development,” she says.

### **The race against time**

Along with Gunnar, Maria Kroupina (Ph.D. ’03), assistant professor of pediatrics in the Center for Global Pediatrics and director of the developmental program in the Adoption Medicine Program and Clinic (which collaborates on research projects with the MNIAP), is investigating recovery from early



Anthony, 3, sucks on a sweetened swab as part of a test Gunnar developed to measure levels of the stress hormone cortisol in children's saliva.

life stress by children who are adopted from institutions. Kroupina began her research as a doctoral student in child psychology with Gunnar as her adviser.

"This population's neurological developmental outcome is at risk—not their health, but their mental health," Kroupina comments. "The Adoption Medicine Clinic offers a multidisciplinary program to help our patients and their families during this time of transition."

For Kroupina, the interpretation of research results into clinical practice cannot happen soon enough. "It is very important to translate the research into a clinical program so that we can help the kids in the clinic as soon as possible after their placement in their new family," she says. "The brain is incredibly plastic, and what we can do for children early on is really amazing."

Kroupina recently received a national fellowship from the Zero to Three organization to design sensitive initial assessment tools and a mental health intervention program for adopted infants and toddlers. She notes that, based on research findings, interventions that promote parental sensitivity to their newly adopted children's needs are associated with positive outcomes. "If you see internationally adopted children soon after adoption there are so many possibilities. Early diagnosis means early intervention," she says. "Our clinic helps adoptive parents deal with behavioral issues, and to understand their child's special needs. It helps when we give parents the tools early on. Then they can reorganize the parent-child relationship in a way that works for the family's and the child's needs."

## Family Matters

Martha Rueter, an associate professor in the Department of Family Social Science, agrees that early intervention may be the key to helping adoptive families develop a healthy parent-child relationship.

Rueter's recent research compared communication and levels of conflict in families where children are biologically or not related to their parents. Rueter found that when adoptive families did not emphasize family communication, their children were three times more likely to struggle in school and have behavioral problems than children in non-adoptive families.

"It seems that when an adopted adolescent says to their parent, 'You don't understand me,' they may have a stronger basis for that statement than adolescents who are biologically related to their parents," she comments.

Interestingly, Rueter did not find that families with internationally adopted children struggled any more than those who adopted domestically. "This could be because the family may be more likely to talk about its differences when it is physically apparent that the child is different than the parents," she hypothesizes.

Rueter is confident that, despite their differences, most domestically and internationally adopted families can find enough common ground to help their children thrive, even when the children struggle with developmental delays.

"Adoptive families definitely play a positive role in a child's development. Adopted children can lag behind by several years (academically) but, after being adopted, they usually catch up," she says.

Gunnar agrees with Rueter that children can recover from delays in cognitive development. "Even if neural systems can't be repaired, the children may be able to work around the damage with practice," she notes.

She adds with satisfaction that, while the effort to benefit so many families and children can be overwhelming, she looks forward to seeing her research broadly applied to different types of neglected and abused children throughout the U.S.

"As researchers we get to ask fantastic questions like 'How plastic is the brain to rebound after early deprivation?' But however exciting these inquiries may be, science is not just to satisfy one's own curiosity when kids have suffered adversity," says Gunnar. ●

# MIND AT TA T TE R S

MARRIED RESEARCHERS CONNECT THE LINE FROM BRAIN FUNCTION TO SCIENCE AND MATH LEARNING

BY GREG BREINING

Keisha and Sashank Varma are joining forces to research how students learn math and science.



**IS IT POSSIBLE TO TELL** who will make a great scientist based on some simple tests that reveal how the brain works? Or even to predict by scanning brain activity with an MRI?

Possibly, but not yet. First, an introduction to the people who are researching these concepts:

Keisha and Sashank Varma are married, both work as assistant professors in the Department of Educational Psychology, and both study how human minds grapple with the unfamiliar and often abstract problems posed by science and mathematics. But they approach the question in vastly different ways.

Keisha's work is more traditional and more practical: understanding cognitive processes that underlie scientific learning and how students might learn better using computing technology. She measures how well students grasp scientific lessons through traditional research approaches such as testing.

Sashank approaches the process more fundamentally, by using technology to peer into the brain to understand the architecture of the cortex, which enables the complex mental tasks that he describes as distinctly human "and indeed make us human."

Despite similarities in their scholarship, they only recently began working together for the very first time. “It’s the only thing we’ve ever collaborated on in almost 20 years of knowing each other,” says Sashank.

Speaking professionally, of course.

## New approaches to science

The Varmas met as doctoral students at Vanderbilt University. When Keisha finished her degree, she moved to the University of California, Berkeley, and Sashank soon followed. There, Marcia Linn was developing WISE (Web-based Inquiry Science Environment), a computer-based curriculum that teaches science subjects through explanations, narratives, graphics, animation, and guided discussions.

Keisha had long been interested in how the mind organizes information, whether everyday narratives or scientific processes of proposing and testing hypotheses. She was also interested in using technology to help students learn. “It started with students who couldn’t comprehend stories well,” she says. “They were at risk for failing school.”

Science topics are even more difficult for many kids, Keisha says. Concepts and problems are often presented in expository fashion, rather than the kind of narratives students may be accustomed to. Many are being asked for the first time to generate questions and to gather and evaluate evidence. “I think doing those things in order to learn is new to young students,” she says.

At Berkeley, her interest shifted from the psychology of cognition to science education as she helped design online learning programs. The researchers were discovering that a computer-enhanced curriculum, like WISE, did indeed help students learn better.

Keisha’s research examined teacher factors that contributed to improved utilization of the learning technology. She discovered that previous experience with the program helps. So does the presence of another teacher in the school who is using the curriculum and can share experiences.

Since the Varmas moved to Minnesota two years ago, Keisha has been helping science teachers at Richfield Middle School add the WISE program to their own curriculum.

Keisha investigates how a computer module helps students learn abstract scientific concepts through an inquiry-based approach.





"The students get real excited about the project," says Gary Aylward (B.S. '88, M.Ed. '05), head of the Science Department at Richfield Middle School, who has worked with computer-based instruction for 15 years. "This is far and away the best computer-based interactive project that I have ever worked on. Students are seeing different visualizations and models which represent the concepts that we're trying to have them understand in the classroom. There's always a hands-on lab. They relate that back to the broader concept that they're learning."

Keisha is convinced technology like WISE can help all students—not just because of the visualizations and inquiry prompts in the program itself, but also because students are working two to a computer. "They're working in pairs. And it allows each student to show their strengths in different ways," she says.

Learning outcomes from inquiry-based teaching—as opposed to memorizing principles and formulas—can be challenging to assess. Are students grasping the process of scientific inquiry? To find out, teachers "ask lots of open-ended questions of students to get them to continually express their ideas," Keisha explains. "The teachers need to figure out how to grade or assess that learning—to get a picture of what students know."

Keisha developed the global warming module of WISE, which she has modified based on student learning data and feedback from teachers. She continues to investigate two questions associated with the curriculum's use. The first is how learning differs between a hands-on experience, such as a traditional laboratory experiment, and a computer-based visualization. The second relates to executive function and the project she is working on with Sashank.

**"This is far and away the best computer-based interactive project that I have ever worked on. Students are seeing different visualizations and models which represent the concepts that we're trying to have them understand in the classroom. There's always a hands-on lab. They relate that back to the broader concept that they're learning."**

### **It starts with the brain**

To understand how the mind comprehends abstract problems, Sashank Varma turns to the lab.

As an undergraduate in mathematics and cognitive science at Carnegie Mellon, and later as a graduate student at Vanderbilt University, he worked with Marcel Just to devise 4CAPS, a computer model of how various areas of the brain collaborate. The model even accounts for how areas of the brain, viewed by magnetic resonance imaging (MRI), activate during tasks such as sentence comprehension, spatial reasoning, problem solving, and dual tasking. During his post-doctoral work at UC, Berkeley, Sashank researched how adults and children understand simple, yet abstract, mathematical concepts such as negative numbers. He also plumbed how the mind understands stories and grammatical constructions—"not so much about learning, but simply thinking."

Before researchers make the beguiling MRI images that suggest an objective understanding of brain function, they must know where to look in the brain and what the neural activity means. "You have to do the psychological work first before you do the imaging work," Sashank explains.

And this is why neuroscientists and educators have a lot to teach each other, he says. "Neuroscientists have these amazing tools. But the questions they ask are often not so interesting or informative for education," says Sashank. "They're often questions about very low-level cognitive abilities such as attention or vision. We still know very little about the neuroscience of high-level cognitive thinking, the kinds of things that make us human, like understanding stories or proving

GARY AYLWARD (B.S. '88, M.ED. '05)  
HEAD OF THE SCIENCE DEPARTMENT, RICHFIELD MIDDLE SCHOOL

mathematical theorems. We know very little, almost nothing, about how the brain does that.”

That’s where education comes in. Educators know a lot about the progression of learning to produce narrative text or write geometric proofs. In other words, they know a lot about how learning develops. “By themselves neuroscientists haven’t yet come up with interesting insights about those kinds of complex cognitive functions,” Sashank says.

So the Varmas are tackling an interesting question together: How is scientific reasoning related to working memory and executive function? Executive function involves planning to achieve goals, resolving conflicts, selecting alternatives, and shifting from hypotheses that aren’t working to new hypotheses that may. Working memory is the ability to store and process information.

“These are very basic cognitive functions we know are situated in the frontal lobe,” says Sashank. “A lot of these functions seem important to the kinds of scientific reasoning

Sashank, shown outside of his office in the Department of Educational Psychology, will trace how student ability to learn science via Keisha’s computerized approach maps with cognitive measures.



that Keisha looks at.”

Can simple tests of these skills evaluate a student’s aptitude and potential for science? And somewhere down the line, can imaging reveal the brain functions that underpin scientific reasoning?

The frontal lobe develops late, in early adolescence. So some middle-school students will be far along, some will have barely begun, and some presumably will never excel at these tasks. Keisha is now collecting data on how well students fare in scientific reasoning through use of the WISE module. Meanwhile, Sashank is adapting for the classroom standard tests to measure executive function and working memory, such as manipulating colored balls, sorting cards with colored symbols, and remembering sequences of numbers.

The next step will be to see which executive functions predict science success, says Sashank. “Who’s going to be able to design solid experiments? Who’s going to be able to reason from evidence?”

Students will complete two WISE modules. They will be tested on what they learned and their abilities in scientific reasoning. Then they’ll be tested again, this time for executive function and working memory.

“What’s kind of cool about our work is tying these frontal lobe functions to classroom-based learning,” says Keisha.

Could such knowledge actually help kids learn? Sashank says some research has suggested people can train to improve executive function and boost their abilities in many tasks.

So far, all of this is speculative. But understanding how the brain grapples with scientific process could help teachers and researchers in the classroom confirm what they believe they understand about learning. In the future the Varmas’ research may expand to imaging of the brain to assess how brain function changes following computer-based science instruction.

Says Sashank, “I think it’s nice to know that one’s constructs have a basis in the brain.” ●



# A teacher of principals

BY PETER S. SCHOLTES

**FOR 53 YEARS, NEAL NICKERSON** has wrestled with the dilemma of the school principal. Principals are often the decisive factor in the success of a primary or secondary school. Yet principals don't have all the power and usually fail if they think they do. Nickerson's most widely quoted slogan from his decades as Minnesota's foremost educator of principals is "Delegate or die."

Nickerson learned early on that hands-on experience is crucial to preparing educators. "When I went to the Teacher's College at Columbia University in the '60s, I went to sit at the foot of the masters, the old white men who'd written the books," he says. "And I realized, 'You guys haven't been in a school in a long time.' So I wanted to be a professor to train people better than I was trained."

Above his desk at the University, Nickerson has taped a question: "How will this decision affect our students?" He's kept a version of this posting for 41 years, both as a professor of educational administration and as a principal in Duluth, Stillwater, White Bear Lake, and Minneapolis.

Nickerson is known for using leaves of absence from the University to reconnect with the realities of school administration—for example by serving as assistant headmaster of Breck School in Minneapolis from 1982-83. He founded the college's Minnesota Principal Assessment Center

and led it for a decade, advised more than 150 doctoral students, and still works closely with the Minnesota Department of Education.

"There was no principal in Minnesota, no matter where they trained, that didn't know the name of Neal Nickerson," says Charlie Kyte (Ph.D. '87), executive director of the Minnesota Association of School Administrators.

Nickerson hadn't considered a career in administration before Duluth's superintendent of schools hired him in 1957 as assistant principal at West Junior High, then overrun by the Red Jacket gang. "He called me in and told me, 'I want you to clean up that goddamn school,'" remembers Nickerson, who had been a math teacher and guidance counselor in Duluth.

Nickerson became the kind of hands-on principal who fetched one stubbornly truant student out of his mom's attic. "I don't know if principals do that anymore," he says, laughing. "You can't just lecture those kids, you've got to spend some time and talk to them."

The decisions school leaders make today are better but slower, Nickerson says, with principals still making the difference between good and bad schools. He calls himself "an unabashed defender of principals" and declares, "I don't care about central office; I get in trouble with superintendents."

Nickerson is a widower and a proud father and grandfather. At 82, he shows no signs of slowing professionally. A nominator for the University Council for Educational Administration's Excellence in Educational Leadership award, which he won in 2006, compared him to the Energizer bunny. This year he won the Minnesota Elementary School Principals' Association's Champions of MESPA award, adding to a list of dozens of other honors.

He still keeps a small office on campus and is the most directly involved of the Department of Organizational Leadership, Policy, and Development emeriti, according to Chair Darwin Hendel. He's also a speech judge for the Minnesota Forensic League, adviser to various charter schools, and active in his church.

Yet helping all Minnesota students learn remains his mission: If a good administrator makes a good school, think of what a good teacher of administrators makes. As professor Jennifer York-Barr put it in her supporting letter for Nickerson's UCEA award: "It is hard to imagine how many thousands [of] children's lives he has directly or indirectly affected."

Dorothy Berger, Kathryn Thomas, Dirk Miller,  
and Debra Schipper (left to right)



# Leading for change

ALUMNI SHAPE THE TWIN CITIES  
HUMAN SERVICES FIELD

BY ANDREW TELLIJOHN AND JENNY WOODS

# Founder, Tasks Unlimited

Dorothy Berger (M.A. '66) recalls being interested in the mind from a young age—inspired, in part, by a history of mental illness in her family. She remembers letters about those who were ill and the lack of understanding and support at that time.

Berger first earned a master's in psychology, then pursued social work, completing a master's degree from the University of Minnesota School of Social Work. Then, despite family pressure to remain a homemaker, she went to work. Ultimately she landed at the Anoka State Hospital, where she helped found Tasks Unlimited. The rehabilitation program offers employment opportunities and housing to help people with persistent mental illness stay out of the hospital and be able to work.

Now 85, Berger is proud of the role she played in attempting to change society's perceptions of mental illness. She was program director at Tasks for 13 years before leaving in 1981 and still sits on the organization's board of directors.

"It was very satisfying," she says. "It was social change for us and for the community."



### Q: How was your time at the University?

**A:** I was very busy. At first I thought they were really trying to scare us out of being there because they gave us such huge assignments to be completed in a short time. I felt they were trying to see who had the mettle for this kind of work. ...I certainly learned how to be a social worker. I was a psychologist after my first master's from Pittsburg State University. In social work you have a different attitude toward people. Psychology is sort of looking at them under a microscope. In social work there is more empathy involved.

### Q: What led you to psychology and social work?

**A:** I came to both psychology and social work because there was a lot of mental illness and depression in my family. My family came from Jamaica. ...There were a lot of people with manic depression in that part of the family. We kept getting letters from them saying "so and so has gone that way again." There were no hospitals or psychiatrists or anything like that. My grandmother used to be having her episodes...so they'd lock her up behind chicken wire. I was about seven or eight when I started paying attention.

### Q: How did you start Tasks Unlimited?

**A:** A letter came to the Anoka State Hospital offering a visit from Dr. George Fairweather or some of his staff to discuss his program for helping people with mental illness live in the community in small groups. I looked at it and I thought it was really interesting.

...At that time, the hospital was a revolving door. Patients

would go out; they'd go off their meds; they'd come back; they'd start drinking, and be back again. It seemed pretty dumb.

Three of us went to Arkansas to study a program that had been running for a number of years. We came back, wrote a paper on what we had seen, and had 1,000 copies printed up for us, for other hospitals, and for libraries, thinking we might change the social soup at the time about mental health. Then we began the program.

### Q: When did you decide to incorporate?

**A:** In 1970 we had to start making decisions as to how to get people out of the hospital. That wasn't easy. We didn't have any money. The first grant we got was \$10,000 from Andersen Windows. Hugh Andersen came down himself and saw the program was based on research. He was a forward-looking person.

### Q: Has the program grown like you thought it would?

**A:** There are programs in Texas and New York and different places, but not as many as we thought there would be. Many people, even social workers, still say these patients can't work, they're too sick. We must take care of them. We do have to do some taking care of them but not like babies or children. You throw a big part of a person...down the tubes if he has nothing to do in terms of work.

### Q: What advice do you have for those in this field?

**A:** Be open. Not only be open to your opportunities but be open to the capacities of others and to the potential people have, even when it looks like they aren't going to ever reach it.

—A.T.



# Founder, West Metro Learning

Debra Schipper (M.Ed. '93) started out as a high school English and German teacher but stumbled across her passion outside of school. When she was staying at home, raising her children, a neighbor asked if she would teach her son who was homebound because of an injury. Though he did not have a cognitive disability, teaching of homebound students falls under the auspices of special education, and Schipper discovered an affinity. This led to more one-on-one instruction via Bloomington schools and a newfound passion for instructing students with autism spectrum disorders.

She went on to launch a company that serves these students. West Metro Learning Connections works with children and young adults with autism spectrum disorders or Asperger's syndrome, teaching communication and cognitive skills that they can use to manage anxiety. The ultimate goal is to help clients live and work independently, develop meaningful relationships, and contribute to the community in meaningful ways. Schipper also works with school districts to develop plans for assisting students facing similar issues.

"Individuals with autism spectrum disorders are so unique and so fascinating," she says. "Another passion of mine is just to help the general population; everyone I know, see individuals with autism through the eyes of those of us who love them."

**Q: How do you reach those with autism spectrum disorders?**

**A:** Individuals with autism spectrum disorders have impairments in communication and social interaction and have patterns of behavior where they might have cognitive inflexibilities where they get stuck. We teach them skills to use in certain situations, starting out with play skills and basic communication, such as asking someone to join in or offering help. We try to show them what's in it for them: People will want to be with you. We also teach coping skills, how to tolerate different environments, and how to manage conflict. Most people with autism have anxiety issues, so we work a lot on calming and preventing anxiety and being proactive to avoid or manage it.

**Q: What motivated you to start your organization?**

**A:** Bloomington schools continued to ask me to work with students with emotional behavioral disorders and said they'd hire me if I had a special education license. So I went to the University of Minnesota and earned my master's in educational psychology with a focus in EBD [emotional behavioral disorders]. Working with that population led me to children with autism spectrum disorders.

I started West Metro Learning Connections because I had a vision for how we could provide services in a warm, home-like environment that reduced anxiety for those with autism spectrum disorders. I also wanted clients to have the opportunity to learn and practice social skills in a natural environment. I wanted to ensure that all children had the supports and strategies they needed to succeed.

**Q: How has demand grown?**

**A:** We started in our house. We grew much faster than expected. We were in half a duplex for a year, and then we outgrew that. Then we found this facility in downtown Excelsior and have anywhere from 80 to 100 kids coming to us.

**Q: Who was instrumental in your academic success?**

**A:** I don't know that anyone can learn from Frank Wood [educational psychology professor emeritus] and not have their lives changed. His courses are so rich in scientific, data-based information and strategies, but everything he does also has an insight behind it. He was really teaching us to be holistic in our approach to children. And Stan Deno [educational psychology professor emeritus] is real data-driven, and he got me so that everything I looked at, every intervention I tried, every lesson I write, I think about what specific changes I want to see and how am I going to document that at the end.

**Q: What do you see in your future?**

**A:** As I get older I will do less hands-on work and more training for my staff. They are going to become the frontline workers. I still have a lot of things left to do related to autism. I'm under contract to write a book, but I never have time. I would like to put together a document about what West Metro is, so if someone else wanted to try something like this at least they would have some sort of a skeleton.

—A.T.

# Director, Minnesota Life College

Kathryn Thomas (B.S. '69, M.Ed. '76) started out as an elementary school teacher who quickly developed a specialty in dealing with gifted students. But she also had a desire to take education beyond the walls of public schools.

She became involved with Control Data Corp. when the company was working on computer camps for kids and designed alternative learning schools in several U.S. cities. Later, Thomas managed a grant at Pacer, which serves children and adults with mental health and learning disabilities.

But none of these jobs have meant more to her than Minnesota Life College, which teaches vocational and life skills to help young adults who have learning disabilities or autism spectrum disorders live independently. The founders brought on Thomas as executive director six years ago to help turn around the financially struggling nonprofit. She's succeeded, and then some, and still loves her job.

"I've had such fabulous opportunities in my career going from one different kind of challenge to the next," she says. "This is the one that has tugged the most at my heart, because every day I get to see young adults be successful in areas where they weren't successful before."

### Q: What does Minnesota Life College do?

**A:** It is full-life immersion. That's what is so neat. Our students actually practice the skills where they use them. Young adults come from all around the country to our three-year residential program. They live in townhouses across from our offices. We have six apartments that serve as offices and classrooms and one resident apartment where someone lives on campus 24 hours a day and is on call from midnight to 6 a.m.

The young adults that come to our program have a diagnosed learning disability or are part of the autism spectrum disorder. They have been able to make it through high school. However, they really haven't had a life socially, and life just hasn't been really fun for them.

They are going through their classes: how to scrub your floor, how to balance your checkbook, how to plan your menus; they get graded on those. The whole program here is giving our young adults lots of time to practice. We teach at the grocery store in small groups. We also teach transportation; we give them wheels here. It's not a car; it's the Metro bus and taxis.

We have two programs. In the undergraduate program they come for three years and learn independent living. This year we had nine students graduate. All nine are going into our graduate living program, where they live independently but check in for support.

### Q: How has the program evolved since you arrived?

**A:** The founders had been really involved in running it,

but they were to the point where they didn't know if they could keep the doors open. Part of the problem was where the dollars were coming from. We have added an annual fundraising gala. At the time I came it was only the undergraduate program. I saw the need to add the graduate program.

Next year we will have a partnership with Minneapolis Community & Technical College. We will offer...a vocational technical track. ...We also just received approval to take international students.

### Q: Could you share one or two success stories?

**A:** One young man loved computers and working on Excel spreadsheets. He graduated in 2005. He works for a biotechnical firm doing data entry and spreadsheets. He loves his job; they love him. One of our graduates started working at ARC as a volunteer and loved the ARC store. She asked us if we would help her learn to cashier. We worked with her, and she has now been on the till for three years. Everyone has a success story.

### Q: How was your time at the University?

**A:** I had a very good education there. I realized shortly after I graduated I wanted my master's, and I got that at the University as well. I was able to have the same adviser, Dr. John Manning [curriculum and instruction]. He was a gem. That opened up a lot of doors for me.

I am really excited for what is happening in the college, with the name change and giving the teachers much more experience in the classroom than I had. —A.T.





## Founder, The Emily Program

Dirk Miller (Ph.D. '93), a licensed psychologist who earned his doctorate in educational psychology, has spent more than 25 years helping people overcome eating disorders, most recently as founder and executive director of The Emily Program. Named for Miller's sister, who recovered from such a disorder, the program offers psychological, nutritional, medical, and psychiatric care to people struggling with their relationship to food. Miller also serves on the board of The Emily Program Foundation, a nonprofit dedicated to increasing awareness of eating disorders and access to treatment. Since establishing The Emily Program in 1993, Miller has added six Twin Cities locations and one in Duluth.

**Q: What is the philosophy of The Emily Program?**

**A:** We have a very humanistic philosophy for the programs. A lot of our staff members have had eating disorders. We don't

differentiate "us" from our clients. We don't feel like we are doctors above them, and they are passive patients. This is a community that supports each other. As a community, we create change.

**Q: What has been responsible for the program's growth?**

**A:** The Emily Program has grown because of its employees. I have visited eating disorder programs all over the country and have never seen a more talented group of therapists, dietitians, psychiatrists, physicians, and administrative employees. We have been very fortunate to assemble an extremely talented and committed group of professionals.

**Q: How has your education influenced your work?**

**A:** It taught me how to think like a psychologist. In psychology, if we can see with extreme clarity why things happened in the past, we can help predict what's going to happen. We can help people see: "What is going to cause me unhappiness and pain; what are the factors that might influence that?"

**Q: What are some misconceptions about eating disorders?**

**A:** The main misconception about people with eating disorders is that they are "weak" or they "should know better." As a group, people with eating disorders are very intelligent, resourceful, and disciplined. They just struggle with eating and body image. In other areas of their lives they can be very successful and productive.

**Q: What do people need to know about these disorders?**

**A:** That they are both secondary to other emotional

problems and a primary issue that takes on a life of its own.

In treatment you need to address both the primary behavioral problem, or compulsion, and the underlying emotional issues. It is also important to know that it is extremely difficult to change any long-standing behavior. Patience and perseverance are keys to recovery.

**Q: Why are outpatient services important for treatment?**

**A:** Outpatient psychotherapy is the primary relationship for people in recovery. What happens in inpatient treatment is a small piece of the change process. Where change really occurs is when people learn how to live in an environment that has all the same triggers and all the same challenges that they left, that they were having difficulties navigating before, and they are able to return and be different in that world.

**Q: What is the most rewarding part of what you do?**

**A:** I love the clients. I love being able to see somebody's life evolve over time. There are people who make remarkable change.

**Q: What have you learned about yourself since becoming a therapist?**

**A:** I have learned how important it is to forgive myself for my perceived shortcomings and to accept myself just as I am. We are who we are, and each of us can live valuable, productive, and enjoyable lives with ourselves just as we are. The other important therapy lesson I have learned and practice on a daily basis is that I am able to change the way I think and feel. Thoughts and feelings aren't facts—they can be modified and changed. I can choose to live with fear and insecurity, or I can choose to live with love and self-acceptance. It is difficult to do at times, but I can choose joy and peace of mind.

**Q: Where are you looking to expand the program?**

**A:** We are looking for attractive, comfortable spaces in the Twin Cities area. We need additional space to meet our ever-increasing demand.

—J.W.

**Retired**

**Byron Egeland**, professor, child development, 37 years. Appointed Irving B. Harris Professor of Child Psychology in 1990. One of the architects of the Minnesota Longitudinal Study of Parents and Children, he has specialized in developmental psychopathology, resilience, child maltreatment, and high-risk families. A graduate fellowship has been established in honor of Egeland and his colleague **Alan Sroufe** (see below). To donate, contact the development office at 612-625-1310 or go to [www.foundation.umn.edu/pls/dmsn/online\\_giving.start\\_null](http://www.foundation.umn.edu/pls/dmsn/online_giving.start_null).

**Thomas Hummel**, professor, educational psychology, 41 years. Specialized in counselor education as a statistics and research design expert, adding a scientific base to the field. Hummel helped raise the profile of the college's nationally ranked counseling program.

**Patricia James**, associate professor, postsecondary teaching and learning, 17 years. Utilized her artistic skills in her research, which included understanding ways to teach and learn artistic creativity and to use universal design in postsecondary art education.

**Susan Kovacks-Bahl**, teaching specialist, educational psychology, 12 years. Taught and developed supplemental resources and curricular materials in the American Sign Language Program and coordinated exposure to deaf culture for its students.

**Carol Leitschuh**, research associate, kinesiology, 11 years. Specialized in motor development across the lifespan, child development, developmental/adapted physical education, and early childhood special education.

**Jane Plihal**, associate professor, curriculum and instruction, 30 years. A member of the family, youth, and community program, Plihal chaired the former Department of Work, Community, and Family Education for five years. She also researched teacher education and research methodology.

**L. Alan Sroufe**, professor, child development, 42 years. Appointed William Harris Professor of Child Development in 1990. Specialized in socio-emotional development, developmental psychopathology, and was one of the architects of the Minnesota Longitudinal Study of Parents and Children.

**Richard Weinberg**, professor, child development, 40 years. Past director of the Center for Early Education and Development, as well as past director of the Institute of Child Development. Weinberg's extensive service to the profession and to the University included seven years on the Coalition of Intercollegiate Athletics Campus Advisory Group. Specialized in developmental behavior genetics, psycho-educational assessment techniques, early childhood education, and public policy.

**Robert Yahnke**, professor, postsecondary teaching and learning, 34 years. In addition to his long career with the former General College and its successor, Yahnke spent nine years as an adjunct in family social science. His research focused on the contributions of film and literature to gerontological education.

**Honored**

**Roger T. Johnson** (educational psychology) has been named a 2010 Fellow of the American Educational Research Association.

**Hee Yun Lee** (social work) was named the Fesler-Lampert Chair in Aging Studies.

**Bic Ngo** (curriculum and instruction) received the Women's Philanthropic Leadership Council's Rising Star award, given to a pre-tenure faculty member with promise.

**Gillian Roehrig** (curriculum and instruction), co-director of the STEM Education Center, was honored as an outstanding faculty member by the University's Council of Graduate Students.

**Karen Seashore** (organizational leadership, policy, and development) has been named a Regents Professor—the University's highest faculty recognition.

**Kay Herting Wahl** (educational psychology) was named 2010 Counselor Educator of the Year by the American School Counselor Association.

**In Memoriam**

**Paul Marvin**, professor emeritus, agricultural education, died on April 4, at the age of 91. He had a life-long career as an educator and taught students at the elementary, high school, and university levels. He earned his Ph.D. from the University of Minnesota in 1960 and became a professor of agricultural education at the University. From 1970 until his retirement in 1984, Marvin was chair of the department. He is survived by his wife of 65 years, Ruby H. Marvin; daughters, Suzanne Hartle (Darrell) and Julia Schneider (Bobb); grandchildren, R. Todd Hartle (Jill) and Sarah Hartle. Memorials preferred to "Dr. R. Paul and Ruby Marvin -Agricultural Education Scholarship," C-M-3854, University of Minnesota Foundation, P.O. Box 70870, St. Paul, Minnesota 55170.

**Professor emeritus Tim**

**Mazzoni**, educational policy and administration (now organizational leadership, policy, and development) died of cancer on April 6 at the age of 73. He was a CEHD faculty member for 27 years and mentored both his colleagues and students with grace and ease. Mazzoni was the acting chair of the department, 1998–99, and chair, 1990–91. He won the University's Beck Teaching Award in 1996. He is survived by his wife Judy, son Matthew, daughters Michelle and Lisa Krause, and four grandchildren.



**I AM PLEASED** to have just completed my term as president of the CEHD Alumni Society Board. It's been an amazing experience. The board has worked hard to serve alumni, support students, and

advocate for the college and University. I know that under the new leadership of Heather Vinge Hanson, who took the reigns in mid-June, the CEHD Alumni Society will continue to be a model of excellence for alumni engagement.

I'm excited that homecoming is right around the corner. Merriam-Webster defines homecoming as the return of a group of people, usually on a special occasion, to a place formerly frequented or regarded as home. I hope you'll come home this fall to "paint the town gold" and celebrate Homecoming 2010 with us. The CEHD Alumni Society will again be hosting a pre-parade tailgate party on Friday, October 1, with a cookout on the Burton Hall Plaza. Please join us for an opportunity to connect with alumni and current students, faculty, and staff. It's sure to be a Golden Gopher good time.

We're also recruiting alumni and their families to march with us in the homecoming parade, which will immediately follow the tailgate party. Wear something gold and join us as we march down University Avenue. We'll show everyone which college has the most pride and tradition at the U!

You can stay informed of our homecoming happenings and other news by visiting us online regularly at [cehd.umn.edu/alumni](http://cehd.umn.edu/alumni) and on Facebook, Twitter, or LinkedIn. Staying connected has never been so easy!

*Carol Mulligan*

Carol Mulligan, B.S. '01  
immediate past president,  
CEHD Alumni Society

<h3>1950s</h3> <p><b>Joseph Novak</b> (B.S. '52; M.S. '54), professor emeritus at Cornell University, has published the second edition of <i>Learning, Creating, and Using Knowledge: Concept Maps as Facilitative Tools in Schools and Corporations</i>.</p>	<h3>1960s</h3> <p><b>Mary Jane Roe Backman</b> (B.S. '67) was awarded honorable mention in the fiction category at the 2010 Paris Book Festival for her debut novel, <i>The Seven Turns of the Snail's Shell</i>.</p>	<h3>1970s</h3> <p><b>James Lichtenberg</b> (Ph.D. '74) received specialty board certification in counseling psychology through the American Board of Professional Psychology in February.</p>	<h3>1980s</h3> <p><b>John Anderson</b> (B.S. '77) led the University of Minnesota baseball team in the first-ever baseball game at Target Field in Minneapolis on March 27. Anderson has more wins than any other baseball coach in Big Ten history.</p>	<h3>1990s</h3> <p><b>Maureen O'Brien</b> (Ph.D. '91) is feeling healthy again after a year of colon cancer treatments and is eager to return to work as a parent coach and speaker. O'Brien is the founder of <i>destinationparenting.com</i>, and she recently authored, <i>Advantage Mom: 20 Lessons from a Parenting Pro</i>.</p>	<h3>2000s</h3> <p><b>Jin Wang</b> (Ph.D. '92) received the R. Tait McKenzie Award from the American Alliance of Health, Physical Education, Recreation and Dance in recognition of distinguished service by members. Wang is a professor and coordinator of coaching education at Kennesaw State University in Georgia.</p>	<h3>2010s</h3> <p><b>Hossein Agahi</b> (Ph.D. '93) is an associate professor in the College of Agriculture at Razi University in Iran.</p>	<h3>2020s</h3> <p><b>Lori Kaplan</b> (Ph.D. '94) recently published <i>Jaclyn's Journey: Dancing Through Life in Spite of Chronic Illness</i>, a book about how her 10-year old daughter didn't let a complex congenital heart disease get in the way of having a normal childhood.</p>	
 <p><b>Tom Harding</b> (A.A. '83) will receive the University's Alumni Service Award for his volunteer service and leadership at the annual Alumni Association Awards Celebration on September 29. His infectious enthusiasm for the college and the University is unparalleled. Through his involvement with the CEHD Alumni Society Board, Harding has ensured that alumni from the former General College have a home in the college. He also gives freely of his time, resources, and talents to University athletics, Tau Kappa Epsilon Fraternity, the Minnesota 4-H Foundation, and others. In the two decades since Harding graduated from the former General College, he has gone on to become the successful owner of Infinity Direct Inc., building the direct marketer into a \$17 million company with 33 employees.</p>								



Faculty Teaching Award, Tai Mendenhall; Gordon M. A. Mork Outstanding Educator Award, Lynn Jermal; Emerging Leader Award, Amelia Franck Meyer.

**Linda Callender** (M.A. '95) passed away May 7 from pancreatic cancer. She spent much of her 40-year education career in the Anoka-Hennepin School District, moving from teaching into curriculum development and advocacy for educational excellence for all students. Early in her career, Callender taught high school in a rural school district in North Carolina during its first year of desegregation, an experience that was a basis for her life-long commitment to educational equity.

**Ingrid Johnson** (M.Ed. '95) is starting a position as assistant professor in the Movement Science Department at Grand Valley State University in Allendale, Michigan. She previously was a member of the faculty in the University of Arizona College of Education.

**Laura Gilbert** (Ph.D. '97) is the owner of Back to School for Grownups and recently published a guidebook by the same name for adults considering a return to the classroom, which reached No. 22 on Amazon and No. 7 on Kindle in its category.

## 2000s

**Karissa Johnson** (B.S. '00), owner of Premier Physique, opened a private training studio in Forest Lake. In addition to providing training and education, she created a women's fitness program called Moms on

## CEHD Alumni Awards

Distinguished International Alumni Award, Sung-Kyung Yoo; Larry Wilson Award, Donna Tilsner; William E. Gardner PreK-12 Outstanding Educator Award, Natalie Rasmussen; UCEA 2010 Excellence in Educational Leadership Award, Barry Kamrath; Robert H. Beck

the Run that is expanding to seven Twin Cities locations this year.

**Oscar Aliaga** (Ph.D. '05) was appointed program director for the National Research Center for Career and Technical Education at the University of Louisville.

**Mark Vagle** (Ph.D. '06), assistant professor of elementary and social studies education at the University of Georgia, was recognized for excellence in teaching at its Honors Day program in April.

**Susan Gottlieb** (M.Ed. '07) is a language arts and reading teacher for grades 7 and 8 at the Community of Peace Academy.

**Peter Nordgren** (Ph.D. '09) was appointed interim associate vice chancellor for academic affairs and outreach at the University of Wisconsin, Superior.

**Garret Brown** (B.S. '09) signed as an undrafted free agent with the Kansas City Chiefs. He was a two-year starter and captain for the Golden Gophers.

## Share your news online

Did you land a new job? Receive an award? Celebrate a milestone? Let us know. Complete the alumni notes form online at [www.cehd.umn.edu/alumni/connect/notes](http://www.cehd.umn.edu/alumni/connect/notes). We look forward to hearing from you soon!



Shirley Holt, John Larkin, Susan Hagstrom, and Robert Holt

**Dr. John E. Larkin** (B.S. '53) was chosen to receive the Outstanding Achievement Award, the highest non-academic honor conferred by the Board of Regents on University graduates. Larkin, a pioneering orthopedic surgeon, earned his M.D. at the University in 1960. He performed the first total joint replacement procedures in the Twin Cities, as well as the first arthroscopies in Minnesota. But Larkin began his remarkable career in General College in 1949 after graduating from St. Paul Harding High School, where only 7 percent of his class went to college. He earned his bachelor's degree in science education in 1953, having completed his student teaching at University High School in Peik Hall. Beyond his many groundbreaking academic and professional accomplishments, Larkin has distinguished himself as a collector of American art; a renowned horticulturalist; a dedicated leader on community, arts, and cultural boards; and an enthusiastic alumnus of the University. Larkin's award was presented jointly by the College of Education and Human Development and the Medical School. His name will be engraved on the Alumni Wall of Honor adjacent to the McNamara Alumni Center. Alumna Linda Wells (M.A. '84), who will receive an Outstanding Achievement Award this fall, will be featured in the next issue of *Connect*.

# JOIN US!

There are many ways to stay connected with CEHD alumni and friends. We hope you'll join us at some of the events listed below. You can also find us on Facebook, LinkedIn, and Twitter. For more event information, visit us online at [cehd.umn.edu/alumni/events](http://cehd.umn.edu/alumni/events) or call 612-626-8782.

### **Block Party**

#### **Burton Hall Plaza**

**Tuhs., September 2, 3:30-5:30 p.m.**

Welcome the incoming Class of 2014 and celebrate the new school year with CEHD students, faculty, and staff. Alumni and friends are also encouraged to attend and enjoy community, food, music, giveaways, and fun.

### **Celebration of Scholars**

#### **McNamara Alumni Center**

**Tues., October 12, 5:30 p.m.**

The college will celebrate scholarship and fellowship donors and recipients at this annual recognition event. RSVP via email to [sbeyer@umn.edu](mailto:sbeyer@umn.edu).

### **Book Week: An evening with**

#### **Christopher Paul Curtis**

#### **McNamara Alumni Center**

**Thurs., October 21, 4:00- 8:00 p.m.**

Lecture and discussion about the process of writing with Christopher Paul Curtis, critically acclaimed children's author. Curtis's award-winning books include *The Watsons Go*

*to Birmingham-1963 and Bud, Not Buddy*. Visit [cehd.umn.edu/BookWeek](http://cehd.umn.edu/BookWeek) for information.

### **Saturday Scholars**

#### **Coffman Memorial Union**

**Sat., November 6, 8:00 a.m.-2:00 p.m.**

Come back to campus for a day of informal learning—no tests required. Registration begins in late August and will include breakfast, classes taught by faculty, lunch, and a docent-led tour at the Weisman Art Museum. CEUs are available. Visit [cehd.umn.edu/alumni](http://cehd.umn.edu/alumni) to download the registration brochure.

### **CEHD Reads**

#### **Northrop Auditorium**

**Wed., November 10, 7:30 p.m.**

Join the college community in reading *Prisoner of Tehran*, Maria Nemat's memoir of her imprisonment during Iran's Islamic Revolution, and an evening with the author. Information is available at [cehd.umn.edu/reads](http://cehd.umn.edu/reads).

## **EXTERNAL RELATIONS TEAM**



**Lynn Slifer**  
director of  
external relations  
612-625-5511  
[slife001@umn.edu](mailto:slife001@umn.edu)



**Sara Beyer**  
development  
administrator  
612-625-1310  
[sbeyer@umn.edu](mailto:sbeyer@umn.edu)



**Richard Burbach**  
development officer  
612-625-4546  
[rburbach@umn.edu](mailto:rburbach@umn.edu)



**Noriko Gamblin**  
development officer  
612-624-1068  
[ngamblin@umn.edu](mailto:ngamblin@umn.edu)



**David Hoffman**  
senior development  
officer  
612-626-5658  
[dhoffman@umn.edu](mailto:dhoffman@umn.edu)



**Raleigh Kaminsky**  
WPLC coordinator,  
annual fund manager  
612-626-1601  
[kamin003@umn.edu](mailto:kamin003@umn.edu)



**Heather Peña**  
director of  
alumni relations  
612-626-8782  
[hpena@umn.edu](mailto:hpena@umn.edu)

## **HOMECOMING 2010 SEPTEMBER 26 - OCTOBER 2**

### **Alumni Association Awards Celebration**

#### **McNamara Alumni Center**

**Wed., Sept. 29, 5:30 p.m.**

Register at [minnesotaalumni.org/awards](http://minnesotaalumni.org/awards)

### **Alumni Society Board Room**

#### **Ribbon-Cutting**

#### **Room 240, Burton Hall**

**Friday, Oct. 1, 4:00 p.m.**

RSVP via e-mail to [hpena@umn.edu](mailto:hpena@umn.edu)

### **CEHD Pre-parade Tailgate Party**

#### **Burton Hall Plaza**

**Fri., Oct. 1, 4:30-6:30 p.m.**

RSVP at [cehd.umn.edu/events/homecoming](http://cehd.umn.edu/events/homecoming)

### **Homecoming Parade**

#### **University Ave., Fri., Oct. 1, 7:00 p.m.**

To march with CEHD, RSVP at [cehd.umn.edu/events/homecoming](http://cehd.umn.edu/events/homecoming)

### **Homecoming Pep Fest and fireworks**

#### **Location TBA, Fri., Oct. 1, 9:00 p.m.**

### **Homecoming Football Game**

#### **vs. Northwestern**

**TCF Bank Stadium, Sat., Oct. 2, 11:00 a.m.**

For more details and a complete listing of homecoming events and activities, visit [www.homecoming.umn.edu](http://www.homecoming.umn.edu).

# The burden of student debt—and how you can help

**ACCORDING TO A RECENT COLLEGE BOARD STUDY,** 10 percent of undergraduates who graduated in 2007–08 had student debt of \$40,000 or more. The Project on Student Debt, a research and advocacy organization in Oakland, California, used federal data to estimate that 206,000 people graduated from college with more than \$40,000 in student loan debt in that same period. That's a nine-fold increase over the number of people in 1996, using 2008 dollars.

Our students deserve better. Many graduates from the College of Education and Human Development are planning careers in education, school psychology, social work, family therapy, and child development—vocations that do not typically come with large salaries. These positions deserve the best graduates we can prepare, who should be as unencumbered by debt as possible.

College leaders are working hard to help keep tuition costs down. Over recent years, we have made significant cuts to the college budget to trim costs, combine or close programs, and reduce personnel. We have also focused development efforts on raising funds for student support.

Your gifts can help. For example, over the last 10 years alone, more than 3,000 CEHD students have benefitted from endowed scholarships and fellowships established by alumni and friends. Many more students have received support through the Fund for Excellence—funded primarily by annual gifts.

If you would like more information on ways to support students in the College of Education and Human Development, please contact the External Relations office at 612-625-1310, or e-mail me at [slife001@umn.edu](mailto:slife001@umn.edu).



Lynn Slifer, director of external relations

**SAMPLE LANGUAGE FOR WILLS AND BEQUESTS:** "I give, devise and bequeath to the University of Minnesota Foundation, Minneapolis, Minnesota 55455 [percentage of residue, sum, or description of property], the principal and income of which shall be distributed by the Board of Trustees [to name of program or purpose] in the College of Education and Human Development."

## Recent gifts and commitments to the college

A gift of \$136,148 has been received from the estate of **Marilyn Nordstrom Olson** to be added to the Marilyn and Valdemar Olson Scholarship Fund.

**Iris and Charles Fried** have made a \$25,000 commitment to support a scholarship fund for undergraduates who want to be teachers.

**Dorothy Berger** has made a future gift of \$25,000 to establish the Changing Lives fellowship in social work.



COLLEGE OF EDUCATION  
+ HUMAN DEVELOPMENT

UNIVERSITY OF MINNESOTA

Nonprofit Org.  
U.S. Postage  
PAID  
Permit #155  
Minneapolis, MN

**connect**

105 Burton Hall  
178 Pillsbury Drive S.E.  
Minneapolis, MN 55455



Watch the KARE11 story at [www.kare11.com/  
video/default.aspx?bctid=86842324001](http://www.kare11.com/video/default.aspx?bctid=86842324001)

Search

When does a chair support more than a seat?



Search Results

When it teaches students about STEM  
careers and raises money for charity.



As part of their engineering solutions class, students at Central Middle School in Columbia Heights designed and constructed chairs, which they are auctioning for charity. In the process, students were taught to connect mathematic and engineering concepts with real-world applications and future careers. KARE 11's Cool in the School segment featured this partnership with the college's STEM Education Center.

UNIVERSITY OF MINNESOTA

**Driven to Discover<sup>SM</sup>**