

WISCONSIN CENTER FOR EDUCATION RESEARCH
Celebrating 50 YEARS

A great challenge to an education research organization is to substantially influence practice. Wisconsin Center for Education Research researchers have struck a wonderfully successful balance between breaking new intellectual ground and continually asking how educational “best practices” can be made more efficient, better supported, more strategic and thus easier to implement.

For the past 50 years, the field of education has been shaped by research performed at WCER. Using its past success as a guide, my most sincere hope is that WCER continues to play a fundamental role in shaping the future of education.

— Rebecca M. Blank

Chancellor, University of Wisconsin–Madison



WCER: LEADING THE WAY IN EDUCATION RESEARCH FOR 50 YEARS

- 1964 WCER (then the Wisconsin R & D Center for Learning and Re-education) founded in the Education Building basement at the University of Wisconsin–Madison; The Center for Studies and Vocational-Technical Education, eventually the Center of Education and Work (CEW), is founded
- 1965 Herbert Klausmeier and Max Goodson named founding co-directors
- 1965 Moves into a former grocery store at 2200 University Avenue
- 1966 WCER’s annual funding reaches \$1 million
- 1967 Moves into a converted dormitory at 1440 Regent Street
- 1969 *Patterns in Arithmetic*, an instructional TV program produced at the center, tapes its 336th 15-minute lesson reaching more than 385,000 children in 18 states
- 1971 U.S. Office of Education selects Individually Guided Education (IGE) for national use
- 1972 William Bush named director; WCER moves into the newly built Educational Sciences building at 1025 West Johnson Street
- 1973 Richard Rossmiller becomes WCER director
- 1975 National Center for Research in Mathematical Sciences Education founded in WCER
- 1977 After transition to a research-only center due to federal funding stoppage of its other programs, the name is changed to the Wisconsin Center for Education Research
- 1978 Wayne Otto named WCER co-director

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October 20, 2014

I have the honor, by the twists of fate, to be directing the Wisconsin Center for Education Research at the time of our 50th anniversary. It has become evident to me that I also have the good fortune to be building upon 50 years of remarkable inquiry made possible by brilliant researchers, talented staff, ardent students and insightful leadership.

The history of WCER is marked by a willingness to change, follow promising research leads and develop opportunities for impact. Those who were part of WCER 10 or 20 years ago may not recognize it today. One change is simply size—WCER now has annual expenditures of \$63 million and employs approximately 500 people. Equally important has been growth in the diversity of its initiatives. Federal and private funding of research continues as the foundation; however, WCER's fee-for-service educator resources are growing tremendously.

WIDA, which provides assessments, standards and professional development for educators of non-native English speakers around the world, has grown into a \$37 million nonprofit enterprise. This type of entrepreneurial innovation is expanding WCER, as marked by the creation of the Wisconsin Center for Education Services & Products (WCEPS), an affiliated UW-Madison nonprofit driven by its mission to disseminate and market education research-based products, including WIDA's fee-based materials.

Finally, WCER has become ever more multi-disciplinary due to projects such as the Interdisciplinary Training Program in the Educational Sciences, which began in 2005, and, most recently, my own appointment, as my work at the university is as both an astronomy professor and education researcher.

And yet, ultimately, this 50th anniversary celebration is about the people of WCER. When I chat with my colleagues and ask what brought them to WCER, invariably the answer is in the spirit of "because it matters." Since the beginning and into the future, those who become associated with WCER share an inspiring commitment to the idea that improving education will yield better lives for everyone.



Robert D. Mathieu

Interim Director, Wisconsin Center for Education Research
Vilas Distinguished Achievement Professor of Astronomy
University of Wisconsin-Madison



Five Decades of Improving Teaching and Learning

In August 1964, UW-Madison and the U.S. Office of Education signed an agreement to establish what is now the Wisconsin Center for Education Research. With a mission to improve human learning, WCER developed into one of the largest and most productive university-based education research centers.

Today, WCER receives about \$60 million in grant funds and service fees annually. It manages submissions, awards, staff, facilities and also revenues earned for fee-based services among its 140 educational projects. It employs approximately 500 people and provides products and services to educators globally.

WCER has honed its grants management expertise to achieve remarkably high grant approval rates.

WCER's research began with an emphasis on the human mind and motivation, contributing to the rise of cognitive psychology. Researchers documented how students learn and also developed instructional programs. And, in what became a core activity, it advanced math and science learning.

WCER researchers also designed better ways to evaluate student outcomes, developing popular tools such as "Depth of Knowledge" and "Surveys of the Enacted Curriculum." Today, WCER's Value-Added Research Center (VARC) turns mountains of student data into actionable information.

WCER also houses the School of Education's Doctoral Research Program, which trains future education researchers. And through its network of 23 U.S. universities, the Center for the Integration of Research, Teaching and Learning (CIRTL) improves how college faculty teach diverse science, technology, engineering and mathematics learners.

Among WCER's current emphases are establishing equitable outcomes and inclusion in education, as spurred by the work of the Minority Student Achievement Network (MSAN) and Wisconsin Equity and Inclusion Laboratory (Wei LAB). In addition, rapidly growing WIDA provides services and materials for educators of English language learners in 50 countries.

Others in WCER are developing state-of-the-art learning tools. WCER's Epistemic Games Group's computer simulations guide students' role playing as engineering company interns through realistic technology design assignments.

From exploring how we learn, to measuring educational outcomes, broadening equitable learning and integrating technologies into teaching, WCER's effort to advance the understanding and practice of education has grown and evolved over the past 50 years. What has not changed is WCER's continuing passion to make teaching and learning as effective as possible for all ages and all people.



A center within the university's School of Education, WCER provides facilities, project administration, technical services and grant writing support for education researchers.



WCER Research Decides Battle Against Child-Care Stigma

In the summer of 1989, Deborah Vandell received two life-altering invitations. The first came from National Institute of Child Health and Human Development (NICHD). In response to mounting questions about the effect of non-parental care in children's development, the institute was poised to undertake the largest and most comprehensive longitudinal study of child care ever conducted. Following peer review of all of the submitted proposals, the institute funded 10 projects, including one on which Vandell was the lead investigator.

The second invitation involved an offer to become a professor in the Educational Psychology Department at the University of Wisconsin-Madison.

"They were two amazing opportunities, but, together, it was a lot to take on at once," Vandell said. "I came to Wisconsin with a \$2.5 million grant, and, in order to get underway with the study and data collection, I needed office space, observation rooms and several other special facilities. Thankfully, I came into contact with [former] WCER Director Andy Porter, and he said, 'I think we've got a place for you.'"

Settling in on the fourth floor of the Educational Sciences building, Vandell and a growing staff set out to answer the study's main query—whether children placed in child care for all or part of the work week experienced any

Without WCER's support and infrastructure, and its leadership's flexibility and openness to a diversity of research projects, the groundbreaking work that the NICHD study achieved would not have been possible.

—Deborah Vandell

disadvantages compared to those cared for solely by their mothers.

"The motivation for the study initially was concern about early childcare undermining children's relationships with their mothers," Vandell said. "The very powerful theory at that time was attachment theory, which held that a child's secure relationship with its mother is the bedrock on which subsequent child development was based."

By 1991, the lab had recruited some 130 children from diverse backgrounds out of the maternity wards of St. Mary's and Meriter hospitals in Madison, joining a thousand other families from across the country in the study. The first stage of the study followed the children and their families through both interviews and observations, seeking to identify the specific connections between child care and child development. By the study's zenith in the mid-1990s, Vandell was overseeing 22 graduate students working on the project.



Research completed at WCER played a prominent role in dispelling the myth that children placed in child care up to 40 hours per week experienced any negative impacts compared to those cared for solely by their mothers.

Our study was used as a proof of concept, which enabled much larger studies, including the Early Childhood Longitudinal Study—Birth Cohort and the National Children’s Study, which has some 100,000 participants.

—Deborah Vandell

In addition to her work in Madison, during the first five years of the study, Vandell made monthly trips to Washington, D.C. to meet with the nine other principal investigators involved in the project, each of whom led regional efforts from their respective research universities. The group continued to meet five times a year for another 15 years.

“We each ran our own shops, but our group meetings were invaluable because some of the best people in our field were in the room, and we each learned so much from one another,” Vandell said. “I think what made the study so successful was that we put so much effort into working as a collaborative team.”

As the first stage of the study ended in 1994, the research group published its initial findings. The results were striking and fundamentally altered the way American families thought about the way they cared for young children.

“We found that early childcare does not undermine the child’s relationship with the mother or the family, and that the quality and type of child care from infancy until they’re old enough to go to kindergarten are related to their cognitive outcomes when they enter school,” Vandell said.

As the children in the study grew older, the NICHD decided it wanted to measure the longer-term impacts of child care experiences. The institute and other

fundors have extended the study for four subsequent phases, and its latest phase remains active in 2014, as the study participants enter their early 20s.

Researchers at UW-Madison worked on the study until 2006, when Vandell left to become the chair of the Department of Education at the University of California-Irvine (she is now dean of UC-Irvine’s School of Education). Now, with history providing perspective, Vandell said she’s prouder than ever of the work performed on the project at WCER.

“Our study achieved many ‘firsts,’ including using both video and live observations in multiple sites across the country and using multiple standardized assessments with a large sample,” Vandell said. “Furthermore, our study was used as a proof of concept, which enabled much larger studies, including the Early Childhood Longitudinal Study—Birth Cohort and the National Children’s Study, which has some 100,000 participants. We were among the first psychologists to make our data set publicly available—we even hosted training sessions for people who were interested in the data but who weren’t directly involved in the study.

“Without WCER’s support and infrastructure, and its leadership’s flexibility and openness to a diversity of research projects, the groundbreaking work that the NICHD study achieved would not have been possible,” Vandell said.

“The investigators, co-PIs and research staff are core strengths of the center, but I know from my own experience that without the infrastructure and support from the business and technological side, the work would have been much more difficult,” Vandell said. “Everyone there cares about the research. There’s a true desire in WCER to understand educational issues better, and it makes a huge difference.”

Marks of Honor

WCER researchers and staff have distinguished themselves nationally and internationally through the superlative work conducted at the center over the past 50 years. Representative of the honors and awards bestowed by prestigious scholarly organizations on WCER researchers are those given by the American Educational Research Association (AERA) and the National Academy of Education (NAE), two leading national societies for education research. Below is a list of WCER-affiliated researchers who have been named AERA fellows and NAE members, honors that recognize significant and sustained contributions to research in the field of education.

NATIONAL ACADEMY OF EDUCATION MEMBERS

Elizabeth Fennema
Adam Gamoran
Robert M. Hauser
Carl Kaestle
Gloria Ladson-Billings
Valerie E. Lee
Penelope Peterson
Andy Porter
William J. Reese
Thomas A. Romberg
Marshall (Mike) Smith
Deborah Vandell
Ken Zeichner

AERA FELLOWS

Michael W. Apple
Geoffrey D. Borman
Adam Gamoran
Morton A. Gernsbacher
Maribeth Gettinger
Carl A. Grant
Mary Elizabeth (Beth) Graue
Robert M. Hauser
Janet S. Hyde
Gloria Ladson-Billings
Thomas Popkewitz
Andy Porter
William J. Reese
Thomas A. Romberg

AERA HONORS RECEIVED BY WCER RESEARCHERS

AERA President: Penelope C. Peterson, 1997; Andrew C. Porter, 2002; Gloria Ladson-Billings, 2006

AERA Distinguished Contributions to Research in Education Award:

Adam Gamoran, 2014

AERA Early Career Award:

Geoffrey D. Borman, 2004; Maisha T. Winn, 2012; Sara Goldrick-Rab, 2014

AERA Presidential Citation:

Elizabeth Fennema, 1997; Fred Newmann, 2002; Mike Smith, 2002

Palmer O. Johnson Memorial Award:

Joel R. Levin, 1973; Penelope C. Peterson, 1980; Gloria Ladson-Billings, 1996; Fred Newmann, 2003; Geoffrey D. Borman, 2008

Scholars of Color Early Career

Contribution Award: Gloria Ladson-Billings, 1995

Scholars of Color Distinguished Scholar Award:

Jerlando F. L. Jackson, 2011

Scholars of Color Distinguished Career

Contribution Award: Carl A. Grant, 1993

Social Justice in Education Award:

Carl A. Grant, 2010

Review of Research Award:

Carl F. Kaestle, 1987; Thomas P. Carpenter, 1988; Thomas A. Romberg, 1988; Geoffrey D. Borman, 2004; Francois Victor Tochon, 2010



More Than Just Math

The story of WCER would be incomplete without mention of mathematics education research.

Center researchers have produced groundbreaking work over the past half century in the areas of math curriculum, instruction, assessment and teacher professional development.

WCER researcher Michael Irwin described the status quo of math education in the first half of the 1900s by stating that “students typically were drilled on rote math problems loaded with computational tasks but had little opportunity to explore the fundamental ideas of mathematics.” That was about to change.

From the beginning, WCER research focused on concept learning and development of prototype instructional programs, such as *Patterns in Arithmetic*, a TV program launched in 1966 that included videotapes, student lessons and teacher notes based on real-word examples.

In the 1970s, funding from an NSF grant allowed WCER staff to produce *Developing Mathematical Processes*, an elementary school instructional program designed using developmental psychology. Complementing WCER’s Individually Guided Instruction program, it promoted a problem-solving approach that became the basis for most innovative elementary programs in the future.

Since its inception, WCER research has made the case for improving gender equity and culturally relevant teaching in mathematics. For example, girls have

traditionally not performed as well as boys in math. WCER’s Elizabeth Fennema led and published research exploring these differences.

In the *Journal of Research in Mathematics Education*, she documented difference in girls’ and boys’ mathematics learning, particularly in activities that required complex reasoning. She noted these differences increased at adolescence and were recognized by many leading mathematics educators.

The Fennema-Sherman Mathematics Attitude Scales (1976) still is used to measure the variables that affect the ability of students to learn and their multidimensional attitudes toward math.

WCER research has improved achievement by students from families who are not White, middle-class, native English speakers. Directed by Walter Secada and Tom Carpenter, WCER’s DiME Center (Diversity in Mathematics Education) offered professional development opportunities for student teachers, instructional leaders and doctoral and postdoctoral students. The DiME consortium was recognized by the American Educational Research Association for its impact on social justice.

That work continues in a project that develops teaching and learning communities to provide enhanced learning opportunities in and out of school for children in 4-year-old kindergarten. “We’re working with families and teachers to create instruction that is mathematically substantive and culturally sensitive,” says researcher Anita Wager.



Over the decades, WCER research has improved mathematics teaching and learning in Wisconsin and around the U.S.

As with any subject, mathematics classrooms should create an environment in which ideas are communally discussed and in which each student's progress is thoughtfully evaluated. Tom Romberg and colleagues in the Netherlands made the case that mathematics should no longer be presented to students as a ready-made product. That means giving students the opportunity to approach mathematics intuitively, organize and structure problems and identify their mathematical aspects. After developing formalized concepts, students then are able to apply them to new problems.

The resulting Mathematics in Context (MiC) curriculum aligned with the National Council of Teachers of Mathematics' (NCTM) *Curriculum and Evaluation Standards for School Mathematics* (1989). Published by the Encyclopedia Britannica Company, MiC is used across the country.

The conviction that students will excel in classrooms that support inquiry and exploration guided the work of the National Center for Improving Student Learning and Achievement. To "learn mathematics and science with understanding" means students connect ideas and concepts and then apply what they know to new situations and phenomena.

Tom Carpenter, now professor emeritus, stated, "Students should have opportunities to learn the processes of modeling, generalization and justification as they learn mathematics content. In fact, students do not really understand the content if they don't understand modeling, generalization and justification."

Cognitively Guided Instruction (CGI) was designed to enable teachers to bridge students' informal knowledge with formal mathematical concepts and operations so they spend more time solving problems and less time explicitly practicing number facts. The results, however, demonstrate that these students actually recall number facts more readily than do non-CGI students.

Both CGI and MiC challenge teachers to change the way they think about children's thinking. The materials redefine instructional practice, notions of authority and expectations. They challenge our notions of assessing student progress.

This groundbreaking research continues in the work of Eric Knuth and colleagues, who examine how children's algebraic thinking at younger ages will ultimately help them in more advanced mathematics. A 2009 National Science Foundation grant allowed the research team to examine the impacts of early algebra education on students in grades three through seven, and to develop corresponding assessments and interventions for grades three through five. New funding from the Institute of Education Sciences in the U.S. Department of Education will help scale up this research to 50 schools and 5,000 students through 2018.

WCER mathematics research continues to impact the world. Current and former WCER researchers have collaborated with researchers in Australia, Canada, England, Germany, Japan, Mexico, Peru, South Africa, and Venezuela, and have served on committees for the Program for International Student Assessment (PISA), which evaluates education systems worldwide.



WCER "provides the School of Education a vehicle to make a difference in the world—through groundbreaking basic research and crucial translational work."
—Julie Underwood, Dean UW-Madison School of Education



Photo by Bryce Richter / UW-Madison

WCER Publications of Note

Through the process of publication and dissemination, WCER has created lasting impact on many fronts in the field of education. Below is a list of WCER-affiliated publications that have had particularly profound impact.

“African American Males in Education: Endangered or Ignored?” by Jerlando F. L. Jackson and James L. Moore III, 2006.

Bayesian Statistics for the Social Sciences, by David Kaplan, 2014.

“Disagreement and Causal Learning: Others’ Hypotheses Affect Children’s Evaluations of Evidence,” by Andrew G. Young, Martha W. Alibali and Charles W. Kalish, 2012.

“Does Understanding the Equal Sign Matter? Evidence from Solving Equations,” by Eric J. Knuth, Ana C. Stephens, Nicole M. McNeil and Martha W. Alibali, 2006.

“Embodiment in Mathematics Teaching and Learning: Evidence from Learners’ and Teachers’ Gestures,” by Martha W. Alibali and Mitchell J. Nathan, 2012.

“Epistemic Network Analysis: A Prototype for 21st Century Assessment of Learning,” David Williamson Shaffer, David Hatfield, Gina Navoa Svarovsky, Padraig Nash, Aran Nulty, Elizabeth Bagley, Ken Frank, André A. Rupp and Robert Mislevy, 2009.

History, Education, and the Schools, by William J. Reese, 2007.

How Computer Games Help Children Learn, by David Williamson Shaffer, 2006.

Integrating Research on Teaching and Learning Mathematics, by Elizabeth Fennema, Thomas Carpenter and Susan Lamon, 1988.

“An Investigation of Teachers’ Beliefs of Students’ Algebra Development,” by Mitchell J. Nathan and Kenneth R. Koedinger, 2000.

“It Doesn’t Add Up: African American Students’ Mathematics Achievement,” by Gloria Ladson-Billings, 1997.

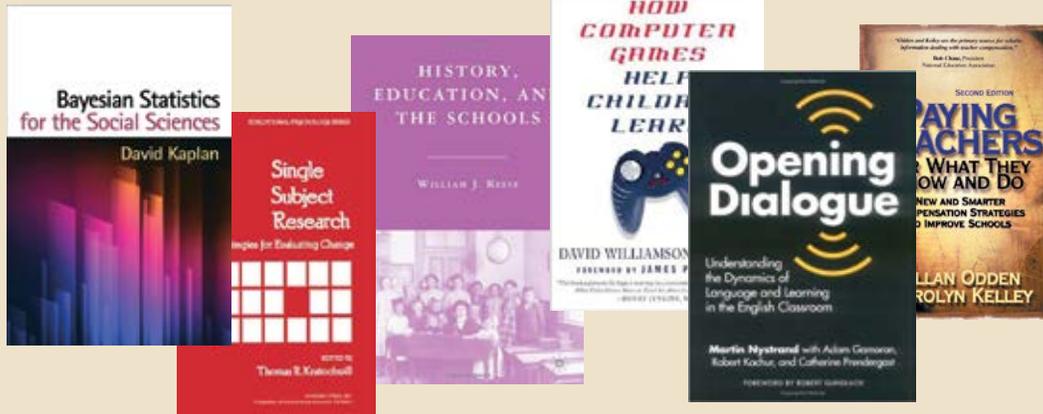
“Just Showing Up: Supporting Early Literacy Through Teachers’ Professional Communities,” by Gloria Ladson-Billings and Mary Louise Gomez, 2001.

Mathematics in Context, by Thomas Romberg, 1993.

“Mismatch and the Paternalistic Justification for Selective College Admissions,” by Michal Kurlaender and Eric Grodsky, 2013.

Opening Dialogue: Understanding the Dynamics of Language and Learning in the English Classroom, by Martin Nystrand, with Adam Gamoran, Robert Kachur and Catherine Prendergast, 1997.

Paying Teachers for What They Know and Do: New and Smarter Compensation Strategies to Improve Schools, by Allan R. Odden and Carolyn J. Kelley, 2001.



Reducing Income Inequality in Educational Attainment: Experimental Evidence on the Impact of Financial Aid on College Completion, by Sara Goldrick-Rab, Robert Kelchen, Douglas N. Harris and James Benson, 2014.

“Secondary School Tracking and Educational Inequality: Compensation, Reinforcement, or Neutrality?” by Adam Gamoran and Robert D. Mare, 1989.

Single Subject Research: Strategies for Evaluating Change, by Thomas R. Kratochwill, 1978.

The Subtle Danger: Reflections on the Literacy Abilities of America’s Young Adults, by Richard Venezky, Carl F. Kaestle and Andrew M. Sum, 1987.

“Teacher Quality and Educational Equality: Do Teachers with Higher Standards-Based Evaluation Ratings Close Student Achievement Gaps?” by Geoffrey D. Borman and Steven M. Kimball, 2005.

“Tools for Scaffolding Students in a Complex Learning Environment: What Have We Gained and What Have We Missed?” by Sadhana Puntambekar and Roland Hübscher, 2005.

“Towards a Theory of Leadership Practice: A Distributed Perspective,” by James P. Spillane, Richard Halverson and John B. Diamond, 2004.

“Upgrading High School Mathematics Instruction: Improving Learning Opportunities for Low-Achieving, Low-Income Youth,” by Adam Gamoran, Andrew C. Porter, John Smithson and Paula A. White, 1997.

“Using Knowledge of Children’s Mathematics Thinking in Classroom Teaching: An Experimental Study,” by Thomas P. Carpenter, Elizabeth Fennema, Penelope L. Peterson, Chi-Pang Chiang and Megan Loef, 1989.

“Value-Added Indicators of School Performance: A Primer,” by Robert H. Meyer, 1997.

“The Wisdom of Class-Size Reduction,” by M. Elizabeth Graue, Kelly Hatch, Kalpana Rao and Denise Oen, 2007.



Leading the Way to an Equitable Educational Future

The classrooms educators look upon today appear much different than in the year of WCER's founding. In 1964, the word "multicultural" didn't exist in the U.S. educational lexicon. In 2014 racial and ethnic "minorities" are projected to make up most students in U.S. public schools.

In the next 10 years, according to the U.S. Department of Education, the United States public education system will see student increases of 33 percent among Hispanics, 20 percent among Asian Americans and two percent among Blacks.

UW-Madison education professor and WCER researcher Carl A. Grant helped coin the term "multicultural education." He has written and lectured extensively on teaching approaches that serve a range of students in terms of race, class, gender and disability. In his time at UW-Madison, he said, he's seen equity research move from the margins to the mainstream.

"We're at a point where we need to bring together a way of conceptualizing, thinking, writing about and preparing teachers to deal with a diversity of kids in the classroom," Grant said.

Gloria Ladson-Billings is another WCER researcher leading the charge nationally to identify failures of the educational system in teaching students of color and to identify ways to improve. A pioneer

of culturally relevant teaching and the application of critical race theory to the field of education, she has led WCER projects that seek to improve the teaching and testing of students from diverse backgrounds.

WIDA also serves the needs of students from diverse backgrounds. Since 2003, WIDA's mission has been to advance the academic language development and achievement of linguistically diverse students in the United States, the vast majority of whom are from Spanish-speaking homes. WIDA's standards have been used to help develop the English language proficiency of more than 1.7 million students.

The Minority Student Achievement Network (MSAN) also performs groundbreaking work on educational equity. Led by Executive Director Madeline Hafner, MSAN helps member school districts conduct, publish and use research to make changes designed to end racial achievement gaps.

The Families and Schools Together (FAST) project has created programs that more deeply engage parents from diverse ethnic and socioeconomic groups in the education of their children. Founded by Lynn McDonald in 1988, FAST has been implemented across the U.S. and in 20 countries. Last year it won a \$15 million grant to expand into 60 Philadelphia elementary schools.



Across the country, members of the Minority Student Achievement Network adopt policies and recommendations from emerging research to better understand and change school practices and structures that keep racial achievement gaps in place.

Another project making strides is Wisconsin's Equity and Inclusion Laboratory (Wei LAB). Jerlando F. L. Jackson founded the Wei LAB in 2010 to "engage the most difficult and important equity and inclusion topics in education." In 2012, the Wei LAB launched the International Colloquium on Black Males in Education, a group of leading academics and policy experts who look for ways to help Black males who struggle in education.

"The achievement gap, among many other known barriers to obtaining equity in education, especially deserves the attention of the nation's leading researchers," Jackson said. "Recent reports that challenge how well we educate students of color should be our clarion call to respond."

Under the direction of founder Rob Meyer, the Value-Added Research Center (VARC) has worked since 2004 to create more equitable ways of measuring educational effectiveness among districts, schools and teachers. VARC has partnered with many large school districts, as well as more than 50 districts in Wisconsin, which meet regularly to discuss achievement gaps and school accountability systems. VARC received funding from the Milwaukee Public Schools to support an embedded researcher position, giving WCER an on-the-ground presence in Wisconsin's largest school district for the past decade.

A team of WCER researchers led by Steven Kimball and Bradley Carl supports the Wisconsin Department of Public Instruction as it develops a new state Educator Effectiveness system. This initiative aims to better evaluate the performance of teachers and school leaders and provide them targeted feedback for improvement.

Geoffrey Borman has spent much of the last decade tackling the achievement gap and exploring methods to overcome it. His WCER studies include a review of the U.S. Department of Education's Title I program, which aims to ensure that all children have a fair and equal opportunity to obtain a quality education. His study on "stereotype threat," which undermines the academic performance of those in groups perceived to be poor learners, has shown that simple 15-minute self-affirmation writing exercises can buffer students from the damage caused by stereotyping and lead to improved test scores.

Other WCER researchers who have made significant impacts in equity research include Catherine Compton-Lilly, who showed how Wisconsin's implementation of the Reading Recovery program is unfair to African American children; Aydin Bal, who developed a program that better integrates the life experiences, and cultural and linguistic practices, that students and families from historically marginalized communities bring to schools; and Bonnie Doren, who studies the school experiences of youth with disabilities.

The quest for educational equity among students of all backgrounds always has been central to the mission of WCER. There is no doubt that WCER's research-driven inquiry has been instrumental in creating changes nationally in improved access, student learning and educational outcomes. On a larger scale, a fundamental mission of WCER—building a deeper understanding of inequalities in education—has provided knowledge essential to advancing the common good, immeasurably bettering the human, social and economic capital of the country.

A Tribute to Service

Since the beginning, WCER's support staff has played an essential role in the success of the center and its projects. From the Copy Shop to Technical Services, from the Business Office to administrative services for individual projects, WCER's academic and classified staff members have excelled at a variety of integral positions, allowing researchers to focus on their research, and therefore contributing significantly to the center's distinguished reputation.

As part of the festivities surrounding WCER's 50th anniversary, nine longtime WCER classified and academic staff members gathered to discuss the role that classified and academic staff played in the center's development. The group included Lisa Armstrong, Gwen Goplin, Eileen Kellor, Sue LaLuzerne, Lynn Lunde, Alissa Minor Oleck, Kay Schultz, Bonnie Sullivan and Mary Tedeschi. They have a combined 250 years of experience working at WCER.

Much of the center's success, according to the group, is due to the organizational structure at WCER, which allows the center's staff to specialize in tasks best suited to their particular skills and talents.

"When you're an administrative assistant with the task of managing a project, as I was, it was critical to have the support of the Business Office, Director's Office and Copy Shop," Armstrong said. "You can focus on your job and not worry about trying to figure out how to order pencils, for example."

The center also benefited from a core group of individuals deciding to make their jobs at WCER into careers.

People don't hesitate to seek out help, and I think we all welcomed any questions in our areas of expertise. For me at least, it was very nice to feel valued and like I was contributing to the common good.

— Alissa Minor Oleck,
WCER Senior Research Specialist
from 2001-2014

"Historically, there have been so many people at the center who just know how to get things done, whether it's in the context of the university, the center or their individual projects," LaLuzerne said.

Whether it was encouraged by the center's administration or occurred naturally due to Midwestern values, for as long as the center has existed, it has been imbued with a collaborative, can-do spirit, the group agreed.

"People don't hesitate to seek out help and I think we all welcomed any questions in our areas of expertise," Oleck said. "For me at least, it was very nice to feel valued and like I was contributing to the common good."

More than any other factor, the group concurred that it was a commitment on behalf of everyone to the common good that has been the secret ingredient in the center's success. "We are like one big happy family. We worked hard and we did well because we made our jobs about helping people in general," Schultz said. "But really, it started with helping out each other."



What's Next?

In the book commemorating WCER's 25th anniversary in 1989, Herb Klausmeier made a prediction the publication of this book confirms, that WCER would go on to celebrate a 50th anniversary and contribute “far more to the betterment of schooling in Wisconsin and nationwide than we were able to accomplish in the first 25 years. It will have made a great leap forward in improving the education of all children, and especially children from poor and disadvantaged classrooms.”

It is crucial for the good of all that WCER continues to provide new ideas and rigorously sound findings that advance teaching and learning.

—Robert D. Mathieu

Dr. Klausmeier would likely conclude, happily, that his prediction has come true. At the same time he would say there is still so much to do, especially with respect to achieving equitable outcomes for all children.

As was true 25 years ago, today we can be sure that continued shifts in student demographics, learning technologies, federal policies and funding will shape the future of education. Assuredly education research, both techniques and outcomes, will need to progress in order to advance the learning of all students within this changing landscape of opportunities and challenges.

So the work of WCER will continue at the forefront of education research. Researchers and practitioners will continue to collaborate—only together can we make the differences that we seek. Professors will continue to inspire teachers-in-training and in-practice to seek and use research-based knowledge. School leaders will continue to seek new direction and vision, while governing bodies will seek strategic guidance.

Perhaps most importantly, WCER must seek to become ever more inclusive. Ultimately our grand challenges will be addressed through sifting and winnowing through a rich diversity of ideas, and through interdisciplinary collaborations both within and beyond WCER.

“Whether climate change, health care or social policy, research-based results can and must enlighten argument, challenge myth and inform decisions,” affirms WCER interim director Robert Mathieu.

“It is crucial for the good of all that WCER continues to provide new ideas and rigorously sound findings that advance teaching and learning.”



Remembering Herb Klausmeier

Herbert J. Klausmeier, the UW-Madison professor emeritus of educational psychology who led the founding of the Wisconsin Center for Education Research, passed away on May 20, 2014 at the age of 98.

Klausmeier was a driving force behind the creation of the Wisconsin Research and Development Center for Learning and Re-education, WCER's original name when it received its seed funding of \$500,000 from the United States Office of Education in 1964. Klausmeier served as WCER's co-director for research from 1964 to 1968 and as the center's director from 1967 to 1972.

Born in southern Indiana, Klausmeier attended a one-room elementary school and graduated from high school at age 15. He received bachelor's and master's degrees from Indiana State University, then earned a doctorate in education from Stanford University. Klausmeier arrived on the UW-Madison campus in 1952 and, over the next three decades, established himself as a leader in research-based education improvement.

With a primary focus on classroom learning, Klausmeier's early research focused on identifying differences in the physical, mental and other characteristics of children. His later research centered on learning concepts in mathematics and other subjects. In the late 1960s, Klausmeier and several WCER colleagues developed a seminal theory of concept learning and a closely related strategy for teaching concepts,

collectively known as Individually Guided Education (IGE). By the mid-1970s, more than 3,000 schools in 37 states had adopted IGE principles and strategies.



Herbert J. Klausmeier, 1964

In addition to instilling a vision of joining teaching and research for the improvement of schools into WCER's mission, Klausmeier encouraged the diversification of the center's faculty and staff and always encouraged intellectual debate about the latest policy topics in American education. He helped procure \$8 million in federal and state funds to build the 13-story Educational Sciences building at 1025 West Johnson Street in Madison. WCER's home since 1972, it became known as "the house that Klausmeier built."

In the course of his career, Klausmeier authored 10 books, 33 chapters in edited books and scores of journal articles. He also edited *The Wisconsin Center for Education Research*, a volume covering the first 25 years of WCER's history. His contributions to both the permanence of the center at UW-Madison and to the continuation of the federal program of university-based education research centers cannot be overstated. He leaves a legacy at WCER that can be seen in the dedicated resolve of WCER staff to make a lasting difference in the education of today's children and for generations to come.



"Herb was certainly one of the leading education researchers and scholars of the 20th century... He was a giant, and will be missed." —Frank Farley, L.H. Carnell Professor, Temple University, formerly WCER researcher, past AERA and APA President

WCER: LEADING THE WAY IN EDUCATION RESEARCH FOR 50 YEARS

- 1980 Marshall (Mike) Smith named WCER director; The center's mission statement includes "seeing diversity as...a central challenge for educational techniques" and researchers are encouraged to study "the diversity of students in the context of our social values and policies at every level..."
- 1981 The center includes 48 UW professors from 16 departments among four colleges or schools
- 1982 WCER's annual funding reaches \$2 million
- 1985 The Consortium for Policy Research in Education, which brings together education experts to inform education policy and practice, joins WCER
- 1986 Carl Kaestle named WCER director
- 1988 Andy Porter named WCER director; Work begins on CLASS, a computer system performing in-class analysis of classroom discourse
- 1989 WCER's Visiting Minority Scholar Program begins
- 1990 The Center on Organization and Restructuring of Schools (CORS) is founded to study how school restructuring can improve student learning; Two dozen WCER projects support 50 faculty, academic staff and more than 40 graduate students
- 1995 The National Center for Improving Student Learning and Achievement in Mathematics and Science (NCISLA) founded in WCER
- 1996 National Institute for Science Education (NISE) founded in WCER
- 1999 WCER creates the Milwaukee Public Schools Embedded Researcher position, enabling a researcher to provide technical assistance and research to the district
- 2001 Diversity in Mathematics Education Center (DiME) founded in WCER
- 2002 System-wide Change for All Learners and Educators (SCALE), focused on improving mathematics and science teaching and learning at all levels, founded
- 2004 Adam Gamoran named WCER director
- 2005 Interdisciplinary Training Program for Predoctoral Research in the Educational Sciences (ITP) founded in WCER
- 2006 WIDA, which advances academic language development and achievement for linguistically diverse students, moves from Wisconsin's Department of Public Instruction to WCER; The Center for the Integration of Research, Teaching and Learning (CIRTL), which advances effective teaching practices for future higher education faculty, joins WCER
- 2007 Value-Added Research Center (VARC) founded in WCER
- 2010 The Wisconsin Center for Education Products & Services (WCEPS) founded to assist university-affiliated organizations (including WCER) market copyrighted products; Wisconsin's Equity and Inclusion Laboratory (Wei LAB) founded in WCER
- 2012 WCER awarded \$15 million grant to expand the Families and Schools Together (FAST) project to 50 schools in Philadelphia
- 2013 Robert Mathieu named WCER interim director
- 2014 WCER celebrates its 50th anniversary



**Wisconsin Center for
Education Research**

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UNIVERSITY OF WISCONSIN-MADISON

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University of Wisconsin-Madison | 1025 West Johnson Street | Madison, Wisconsin | (608) 263-4200 | wcer.wisc.edu