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Supervising EditorsVirginia Buysse, Pam Winton

Editor Loyd Little

Graphic DesignMiki Kersgard

CirculationJay Hargrove

Photography Don Trull

Editorial Offices

521 S. Greensboro Street, Suite 100 Carrboro, NC 27510

Postal Address

Send change of address to: Jay Hargrove, CB# 8185, UNC-Chapel Hill, Chapel Hill, NC 27599-8185

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The Frank Porter Graham Center has more than 60 state and federally funded projects, most of which focus on early childhood development, ages birth to eight. Our researchers study such things as young children's health, services and practices for children with disabilities, family development and support, recommended practices in child care, early intervention, and policy implications. *Early Developments* contains updates on current studies, excerpts from our research and policy briefs, and articles about our research findings.

Primary recipients of *Early Developments* include researchers, policymakers, teachers, leaders in the field, and colleagues at sister institutions. We are committed to sharing our research findings with a broad audience, including families, early childhood educators, and care providers. Your ideas and suggestions about *Early Developments* are welcome. If you are not on our mailing list fill out the form below.

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Celebrating 30 years

of research, development, and public service

he Frank Porter Graham Child Development Center was established in 1966 as a multidisciplinary center at the University of North Carolina at Chapel Hill dedicated to improving the lives of young children and their families through research, teaching, and service. Today, nearly 40 investigators and 250 staff and students work on more than 60 funded projects.

Traditionally, the work of center investigators has focused on children under the age of eight years, and includes child and family research, health research, policy analysis, curriculum development, personnel development, and technical assistance. Last vear, the Center was selected by the U.S. Department of Education to serve as the department's National Center for Early Development and Learning.

ESEARCH CONTINUES TO BE THE CORE of the Frank Porter Graham Child Development Center. Over the years, major research themes have included:

- Factors of early intervention that promote optimal outcomes for young children with disabilities, and those at risk for school failures
- Poverty and other risk factors affecting the development of young children
- Children's health issues, including lung function, the transmission of disease in daycare, and the relationships between nutrition and disease
- Family development and adaptation to a child with disabilities
- Child care quality and its effects on development

FPG directs one of four national projects examining quality in Head Start programs, now attended by nearly three-quarters of a million children in the U.S. Also, FPG, along with the UNC Neuroscience Center, serves as one of the nation's Mental Retardation Centers and is home to three early childhood institutes.

Researchers at FPG are often called on to help state and local governments determine the impact of their policies on children and families and to make recommendations for improving policies and practice. For example, the center was chosen as the major evaluator of North Carolina's Smart Start Project. The center's Statewide Technical Assistance for Gifted Education (STAGE) project works with selected North Carolina school systems to help identify gifted students, to challenge those youngsters and to support the teachers who teach them. And FPG's Linkages Project is working to improve early intervention for Latino families and members of the Haliwa-Saponi Indian tribe in North Carolina. Partnerships for Inclusion (PFI) provides onsite consultation to improve quality in child care programs, training, seminars, a statewide lending library and product development.

For 30 years, FPG has operated a family and child care program that serves about 60 children ranging from six weeks to five years of age. Since 1984, the center has fully integrated children with disabilities into all aspects of the child care program. Small group sizes, optimum staff-to-child ratios, the integration of therapy and

special services into the context of daily routines, a curriculum that promotes learning through play, and working in partnership with families all contribute to the quality environment. Over the years, the child care program has supported research projects related to children's health, development, and family involvement.

Financial support for FPG comes from a variety of public and

private sources, including the state of North Carolina, the National Institutes of Health, and the U.S. Department of Education. (2)

FPG is also home to the

National Early Childhood Technical Assistance System (NEC*TAS), a clearinghouse and technical support consortium to help states and communities develop services for young children with special needs.

From the director's office

The goals, then and now

Research at Frank Porter Graham

N THE 1960s the United States was faced with a number of pressing social and economic challenges. The civil rights movement was in full swing, heralding an era of gradual but fundamental changes in the treatment of all of America's citizens. An alarming rate of intergenerational poverty existed, disproportionately affecting children from African American families. Women were entering the work force at earlier ages and at rates never seen before in the history of our country. And persons with disabilities, many of whom had been relegated to lifelong confinement in large residential institutions, were beginning to return to their families and their communities. These forces and research gave rise to:

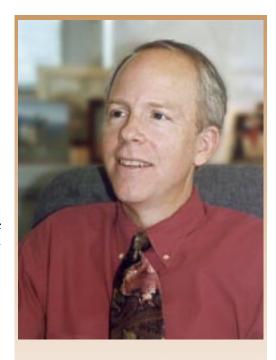
- the belief that by providing high quality child care during the earliest years, school failure could be prevented and the cycle of poverty could be broken:
- concern that the return of mothers to the work force during the early childhood years could damage children's social development and social relations; and
- the belief that early intervention for children with disabilities could help them be successful in their families, schools, and communities.

It was in this context that the Frank Porter Graham Child Development Center was born in 1966. In the ensuing 30 years, center investigators have produced a library of articles, chapters, books, monographs, tests, and curriculum materials. Collectively these efforts have demonstrated the importance of the early childhood years, shown that quality of care is the essential ingredient in ensuring successful outcomes for children and families, demonstrated the meaning of quality, documented the importance of family support, shown the important roles played by state and national policies, and provided many practical aides to practitioners, administrators, and faculty in early childhood.

Have we now solved all of the major issues related to young children? Unfortunately the answer is no. We still see high rates of poverty, with nearly 25% of children under the age of six living below the poverty level. The majority of mothers of children under the

age of six now work, including mothers of infants and toddlers, and there is a pressing need for high quality options for child care. Unfortunately, study after study has documented that typical child care in the U.S. today is poor to mediocre, especially group care for infants and toddlers. Recent welfare reform legislation means that many poor mothers of young children will need to

enter the work force without the resources for adequate child care. Managed care and changes in Social Security and other support systems will likely result in a reduction in preventive and therapeutic health care services. With the shift from federal to state responsibility for control of resources and decisions, states will have to establish standards and



policies that balance the needs of children with the financial constraints of programs and families. And despite a national goal that all children will enter school ready to learn, many children arrive at kindergarten unprepared for the social and academic expectations of school.

In this issue of *Early Developments*, we focus on FPG's latest initiative, the National Center for Early Development & Learning (NCEDL). Funded by the Office of Educational Research and Improvement of the U.S. Department of Education, NCEDL's mission is to provide national leadership for research in early childhood. Our research covers a diverse array of complex issues facing children, families, and schools today: enhancing the quality of child care, easing the transition from preschool to kindergarten, preventing problems in children at high-risk for health, behavioral or educational problems, identifying important policies for state and federal governments, and translating research into practice.

In each area, rather than conducting a single, isolated study, which may not tell us the whole truth, we are engaged in multiple, coordinated activities. Take, for example, the need to improve quality in child care. We knew in 1972 that if you provided high quality care for children at risk you could make a difference in their lives. Amazingly, here we are 25 years later still trying to make the same point. Many factors contribute to poor quality: lack of training, staff turnover, lack of administrative leadership, inadequate financial resources, weak state standards, uncoordinated systems of care, and the list continues. To improve quality we need to understand how all of these factors interact to prevent quality from happening. Thus the center will involve a critical mass of people who have a long history of seeing the big picture and who can work together to figure out what to do.

To function as a child development center, an organization must conduct both basic and applied research. It must draw on multiple disciplines to examine the various facets of a problem. It must examine policies and training practices. Its work must be longitudinal in nature,

with the goal of understanding change over time and the forces that promote or impede change. Most importantly, a child development center must ground its work in the everyday worlds of children, families, and the adults who provide, administer, or set policies for programs that serve children and families.

We hope that *Early Developments* will be an effective means of sharing the research and development activities at the Frank Porter Graham Child Development Center. We also hope that it will serve as a forum for highlighting major issues facing children and families today. Most issues will be thematic, summarizing an array of activities around a particular theme. I will use "From the Director's Office" as a way to summarize issues about the theme and to provide editorial comments on both the research and the state of the field today. Comments and reactions from the readership are encouraged.

—Don Bailey
Bailey is Director of the Frank Porter
Graham Child Development Center and
holds academic appointments in both the
School of Education and the School of
Medicine at UNC-Chapel Hill.

Research spotlight

Recent findings at FPG

Quality of Center Child Care and Infant Cognitive and Language Development

Margaret R. Burchinal, Joanne E. Roberts, Laura A. Nabors, & Donna M. Bryant. (1996). *Child Development, 67,* 606–620.

This study rated the quality of center-based child care received by 79 African American 12-month-old infants, and tested the relationship between quality and infants' cognitive and language development. Previous studies have addressed this issue with older preschoolers, but research on very young children has been limited.

Highlights

- * The quality of infant care positively correlated with scores on standardized assessments of cognitive development, language development and communication skills.
- * Although a positive association was found between quality of child care and quality of the home environment, each independently related to infant cognitive development.
- * Quality of care in child care centers and at home was positively related. Analyses suggested that the process measure of child care independently related to an infant's cognitive development, and one structural measure, the infant-adult ratio, independently related to the infant's overall communication skill.

This study provides the first systematic evidence of the role of quality and its effects on children as young as 12 months of age. These findings, in conjunction with the growing child care literature, suggest that researchers and policy makers should focus on how quality of child care can be improved to enhance, not impair infant development. This concern is especially relevant because many of the infants in this study attending poor quality care were receiving subsidized care paid for by federal and state moneys, providing a very dubious investment of tax dollars.

Recent **publications**

by researchers at the Frank Porter Graham Child Development Center

Assessing the Comfort Zone of Child **Care Teachers in Serving Young Children** with Disabilities.

V. Buysse, P. Wesley, L. Keyes, & D. Bailey. (1997). Journal of Early Intervention, 20, 180-203.

- Families as Systems. M.J. Cox, & B. Paley. (1997). The Annual Review of Psychology, 48, 243-267.
- The 21st Century for Young Children with Disabilities and Their Famlies. J. Gallagher. (1997). Chapter in E. Erwin, (Ed.). Putting children first: Visions for a brighter future for young children and their families. (pp. 261–264). Baltimore, MD: Paul H. Brookes Publishing Co.
- **Educating Exceptional Children. (8TH ed.)** S.A. Kirk, J. Gallagher, & N. Anastaslow. (1997). Boston, MA: Houghton Mifflin.
- Otitis Media in Young Children—Medical, **Developmental and Educational** Considerations.

J.E. Roberts, F.W. Henderson, & I.F. Wallace. (Eds.). (1997). Baltimore, MD: Paul H. Brookes Publishing Co.

Evaluating the Effectiveness of **Curriculum Alternatives for Infants and** Preschoolers at High Risk.

D. Bailey. (1996). Chapter in M.J. Guralnick., (ed.). The effectiveness of early intervention. (pp. 227-248). Baltimore, MD: Paul H. Brookes Publishing Co.

Also in this book...

The Effectiveness of Early Intervention for Disadvantaged Children.

D. Bryant, & K. Maxwell. (23-46).

Quality of Center Child Care and Infant **Cognitive and Language Development.** M.R. Burchinal, J.E. Roberts, L.A. Nabors, & D.M. Bryant. (1996). Child Development, 67, 606-620.

- Associations between Marital Distress and Work Loss in a National Sample. M.J. Cox, M.S. Forthofer, H.J. Markman, S. Stanley, & R.C. Kessler. (1996). Journal of Marriage and the Family, 58, 597-605.
- Characteristics of Infant Child Care: **Factors Contributing to Positive** Caregiving.

M.J. Cox, corporate author. NICHD Early Child Care Research Network. (1996). Early Childhood Research Ouarterly, 11, 269-306.

Policy Development and Implementation for Children with Disabilities.

J. Gallagher. (1996). Chapter in E. Zigler, & L. Kagan (Eds.), Children, families, and government. (pp. 177-187). New York: Cambridge University Press.

Practical Strategies for Family-Centered **Early Intervention.**

P.J. McWilliam, P.J. Winton, & E.R. Crais. (1996). San Diego: Singular Publishing Group, Inc.

Therapy Services in Early Intervention: **Current Status, Barriers, and** Recommendations.

R.A. McWilliam, H.J. Young, & K. Harville. (1996). Topics in Early Childhood Special Education, 16(3), 348-374.

Supporting Early Childhood Inclusion: **Lessons Learned Through a Statewide Technical Assistance Project.**

P. Wesley, & V. Buysse. (1996). Topics in Early Childhood Special Education, 16, 476-499.

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Looking to the future

Researchers with the new National Center for Early Development & Learning (NCEDL), administratively housed at the Frank Porter Graham Child Development Center at UNC-CH, have hit the ground running as they begin five-year studies aimed at boosting U.S. children's intellectual and social development.

n 1996, the Frank Porter
Graham Child Development
Center was named the National
Center for Early Development
& Learning by the U.S. Department of Education's Office of
Educational Research and Improvement (OERI). As one of several
centers funded
by OERI, but the
only one
dedicated to
young children,
NCEDL is

National

advancing knowledge and improving practice in the education and care of young children and their families.

charged with

NCEDL has divided its work into six strands: early child care quality, kindergarten transitions, ecological interventions, policy, statistical modeling of extant and project data, and translation of research to practice.

The center will sponsor an annual conference to synthesize early childhood issues of national concern, will hold at least one major survey each year, and will publish quarterly *Early Childhood Research* and *Policy Briefs*.

NCEDL's multidisciplinary approach means also building partnerships with constituents (parents, day care providers and administrators, teachers, the medical community and policymakers) through focus groups and advisory boards. Each strand is taking an individualized approach with the goal of involving diverse and inclusive groups in a variety of ways at each site. For example, Carollee Howes of UCLA, co-director of the Quality Strand,

has established a consumer advisory board in California, and her codirector, Richard Clifford of UNC-CH, has organized a similar one in North Carolina.

NCEDL is also collaborating with other national institutes and research



entities. Within weeks of establishing the center, NCEDL accepted an

invitation to join the early childhood Laboratory Network Programs, facilitated by SERVE, one of ten regional educational laboratories funded by OERI. A workplan, based on a national needs identification process, has been created by representatives from the seven participating labs and NCEDL. Planning for the national Policy Summit has involved SERVE representatives Nancy Livesay, Peter Mangione, Brian Curry and Roy Forbes.



Highlights

NCEDL researchers include senior faculty members at UNC-CH, the University of Virginia, the University of Arkansas at Little Rock and the University of California at Los Angeles. Here's a snapshot of major events to date:

- Data from a nationwide kindergarten transitions survey was collected from 10,000 kindergarten teachers last fall and is now being analyzed by strand directors Bob Pianta, University of Virginia, and Martha Cox, UNC-CH.
- A national Policy Summit to examine current research about quality child care and the implications of welfare reform for quality child care will be held this year, according to Policy Strand director James Gallagher, UNC-CH. Expected products include recommendations for state legislatures and administrators.
- A conference to synthesize current knowledge and practice with infants and toddlers, principally those in out-of-home care, will be held in the fall of this year, according to Thelma Harms, UNC-CH, who is working in the Quality Strand and the Ecological Interventions Strand.
- The Research to Practice Strand has drawn up a national data base for broad-based dissemination purposes, and *Early Developments* is the first issue of a new quarterly publication, according to strand director Pamela Winton, UNC-CH. NCEDL's home page on the Internet is under construction and can be found at http://www.fpg.unc.edu/ncedl later this month.



Measuring **Quality** in child care

Quality for infants with disabilities

A study of quality of services for infants and

A study of quality of services for infants and toddlers with disabilities is underway by Don Bailey and Lynette Darkes, and Debby Cryer, all at UNC-CH.

The heart of each study is process quality. Clifford thinks this is where some things may have been missed in the past, particularly in children at risk for not doing well in school. For example, there is a movement in recent years toward private academies. Many are highly structured, and some appear to be effective at getting children ready for school. Some of these programs will be examined.

Research has given a pretty clear picture of the many aspects of structure. This new study will look for centers that are doing a very good job and, in some areas, are doing an exemplary job. For example, it's been believed that the best quality care includes an infant staying with the same caregiver over a long time. However, this practice has not been studied in depth. The study will also look at quality care in the more culturally diverse communities, especially in California.

HE WAY WE MEASURE QUALITY IN CHILD CARE accounts for only a portion of the variability seen in childcare programs. So this five-year grant is an opportunity to take a fresh look at quality, identify the salient features that we haven't been measuring before, identify programs that need to improve their quality, intervene in these programs, and then see how it affects the children."

In a nutshell, that's how Richard Clifford, an education professor at the University of North Carolina at Chapel Hill, describes his work as co-director of one of the six research strands of the National Center for Early Development & Learning. The strand is Quality Studies, and he and his co-director, Carollee Howes, a professor at the University of California at Los Angeles, have divided their work into the three following components.

Cost, quality and child outcomes

This project represents the second-grade follow-up of several hundred children participating in the Cost, Quality, and Outcomes of Child Care Study. Its purpose is to assess the long-term effects of varying day care

quality in children's later performance in school. Collaborators on this study include Ellen Peisner-Feinberg of UNC-CH, Sharon Ritchie of UCLA, Lynn Kagan of Yale University and Mary Culkin of the University of Colorado's Health Science Center.

Quality practices and interventions

Developing measures of best practices means looking at quality of care in terms of structure (teacher training, child/staff ratios, classroom size) and

process considerations (what happens on a day-to-day basis with children, how time is used, "tone" in the environment). Assisting in this study are Jana Fleming and Thelma Harms, both at UNC-CH.



Carollee Howes and Richard Clifford co-directors of the NCEDL Quality Strand

The search for best practices sites is underway now, and site visits are expected later this year. Twenty sites will be selected; ten in North Carolina and ten in California. Intervention programs at selected sites should begin late this year or early in 1998.

Researchers are looking for common themes cutting across these "best programs." For example, there needs to be an underlying structure that helps a classroom operate, so that teachers and students

don't have to start from scratch for every decision you make. What is the role of the teacher versus the child? Who makes what decisions? None of our current measures really get at that in the opinion of Clifford.

Howes said, "We're looking for highly structured centers with a high level of love and care as well."

In addition, Clifford and Howes will conduct a national survey this fall to gain the perspectives of teachers on "best practices" and their opinions on barriers to high quality practices. Those results should be ready by the spring of 1998.

Like all of the work at NCEDL, the Quality Strand pulls together research and researchers from a broad base and is building partnerships with constituents (parents, day care providers and administrators, teachers, the medical community policymakers) through focus groups and advisory boards. For example, Clifford and Howes have consumer advisory committees of parents, teachers and administrators actively at work in North Carolina and California.

Consumer advice

The third component of the strand—quality of services for infants and toddlers with disabilities and their families—is under the guidance of Don Bailey and Lynette Darkes, both at UNC-CH. They have set up consumer advisory boards and focus groups, completed a written survey of 175 early intervention administrators in North Carolina, and held a series of focus groups with practitioners and parents in North Carolina. This data is being analyzed now. Also, a literature review is underway.

Clifford said the measurement instruments they expect to develop will be aimed at researchers and practitioners and will include training materials. The researchers said, "we have a good toolbox, but we need to verify some of them. There's also a possibility we'll be revising

> I tell parents that when you go into a classroom to observe child care, don't watch what they're doing with your child, watch what they're doing with other children.

> > -Richard Clifford

the Early Childhood Environmental Rating Scale. And, of course, we want to make sure our data can be replicated." (Clifford, Harms and Cryer are authors of three widely used rating scales, including the ECERS).

"Measurement instruments are important to us scientifically," Clifford said. "This is true in almost every aspect of science. The Hubbell Telescope is a good example. We are learning a whole set of things about how the universe works from this one innovation and measuring tool. History is full of examples where huge leaps follow a new or better way of measuring

something. This is our time to try and make another leap forward in this area."

In addition to fresh grist for an upcoming synthesis conference and for NCEDL's Early Childhood Research and Policy Briefs, outcomes from the Quality Strand will be disseminated to parents, practitioners, policy makers and the public. Parents are sometimes not very discriminating in evaluating the quality aspects of a child care program. They tend to rate the one they've chosen very high. One FPG researcher, Debby Cryer, has found that when parents find something at a center hard to judge, they tend to give the center the benefit of the doubt and rate that aspect high even through they may not be sure.

Parental involvement

Clifford said he sympathizes with parents. "It's hard for parents to look for quality. I tell parents that when you go into a classroom to observe child care, don't watch what they're doing with your child, watch what they're doing with other children. Teachers, of course, behave differently when adults from the outside are visiting. I also remind parents that the younger a child is, the less clear is the feedback you'll get from the child, so parents must take more responsibility for quality for the youngest children."

Information from Quality Strand studies will be widely disseminated as soon as practical through this Early Developments publication, as well as the NCEDL home page, fact sheets, position papers and press releases.



The co-directors

of NCEDL's Quality Strand have many things in common—both are at home in science and math, for example—but the most significant bond is a shared fascination with how people interact with one another.

CAROLEE HOWES

OWES GREW UP ON A FAMILY FARM in the countryside outside of Philadelphia. She was in the fifth generation of a Quaker family. "We had dairy cows and grew everything we needed. Members of my family tell stories," she said laughing, "about me watching for hours and with great curiosity a mother cow and her calf or a mother cat and her kittens. I guess that's when my interest began."

Between getting a bachelor's degree and going to graduate school at Boston University, she spent a year in

Guatemala as a volunteer with the American Friends Service Volunteer organization, a Quaker-related group with a mission similar to the Peace Corp. In the early 1970s, she did some of the first studies focused on center-based care. "We used naturalistic observations in the centers and in the homes," she said.

After joining UCLA in 1981, she began working in the policy area. "At the time, not a lot of attention was on quality care for infants and toddlers." In 1989, she did the National Child Care Staffing Study, the first large-scale center-based care study since the Abecedarian Project of the Frank Porter Graham Center began in the early 1970s. From 1983 to the present, she's been a core faculty member at UCLA for the National Institute of Mental Health's training grant in applied human development. She's been head of the Psychological Studies in Education Division of the graduate school since 1994.

Her research has also focused on the development of children's relationships with others. She completed a

series of articles on children's construction of social relationships with peers, including the 1988 Society for Research in Child Development monograph, which is considered a classic in the area of peer relations of young children. She was one of the first researchers to consider both family and community child care influences on children's development.

Currently on a year-long sabbatical, Howes said she's recently received a Early Head Start grant and is hard at work on that as well as "trying to catch up on a backlog of articles I need to write."

RICHARD CLIFFORD

LIFFORD SAID, "My father was a Baptist minister and my mother a high school science teacher. When I was a kid, I wanted to be a medical missionary. My father was always interested in mission work, and we had a close friend who was a missionary in Nigeria. My mother had majored in chemistry, and so sciences came naturally to me."

After majoring in physics at Wake Forest University, Clifford and his wife taught school in Wilmington,

What do we know?

Selected findings about child care centers

- Child care centers in the United States rate mediocre to poor in terms of quality.
- Quality is particularly low in infant/toddler programs.
- Quality is higher where the following exist
 - Adult-to-child ratios are more favorable,
 - Staff members have more general education,
 - Administrators have experience before coming to a program,
 - Teachers have more specialized training in early childhood,
 - Teacher wages are higher.
- Child outcomes are related to quality of child care, including
 - Receptive language,
 - Pre-math skills,
 - Social skills.
 - Self-perception,
 - Attitudes toward the program.
- Quality is related to the cost of the services, but not as strongly as expected.
- Programs meeting higher standards and regulations tend to have higher quality.
- Market forces in child care appear to hold down costs but also to depress quality.

Source: Cost, Quality and Child Outcomes in Child Care Centers Study

NC, and then "I decided, for some weird reason, I wanted to be a school principal." He liked it and began working on a master's degree at night. Soon, he was asked to help run, and design the curriculum for a new model elementary school in Burlington, NC. "It was exciting, a great experience. Starting a school from scratch."

Still, his life course wasn't fixed until he met an associate dean of education at UNC-CH named Roy Harkin. "I hadn't particularly liked the course work in the master's program, but Roy was interested in the theory of how organizations worked, and I became interested in that. You know the old adage? The most practical thing is a good theory. For me that was true. How people function in organizations was much more useful to me than practical things such as how to use a piece of equipment or what you do when a parent gets mad at you."

"I was always interested in science, figuring out how things work and whether they work. That interest spilled over into my work in education as I sought to discover whether different education reforms actually make any difference to kids," he said.

Clifford enrolled in, and later graduated from, a Ph.D. school leadership program jointly sponsored by Duke University and UNC-CH. The family moved to Carrboro, just outside Chapel Hill, and it was only a matter of time until he and the Frank Porter Graham Child Development Center found each other. He has been the principal investigator in a number of studies of early childhood settings ranging from public school settings to typical child care. He was a key consultant to the National Association for the Education of Young Children (NAEYC) in the development of the association's highly acclaimed accreditation program and is current president of NAEYC.

Source notes

Here are ten of the major resources that were the foundation for research being done by NCEDL's Quality Strand.

- Bredekamp, S., & Copple, C., (Eds.). (1997). *Developmentally appropriate practice in early childhood programs* (rev. ed.). Washington, DC: National Association for the Education of Young Children.
- Cost, Quality and Outcomes Study Team. (1995). Cost, quality and child outcomes in child care centers: Public report, Denver: University of Colorado, Economics Department. [Or the executive summary or full technical report.]
- Hayes, C., Palmer, J., & Zaslow, M. (1990). Who cares for America's children? Child care policy for the 1990s. Washington, DC: National Academy Press.
- Harms, T., & Clifford, R.M. (1980). The early childhood environment rating scale. New York: Teachers College Press. [Or the Infant/toddler environment rating scale (1990) by Harms, Cryer & Clifford, or the Family day care environment rating scale (1989) by Harms & Clifford, also published by Teachers College Press.]
- Harms, T., & Clifford, R.M. (1993). Studying educational settings. In B. Spodek, (Ed.), Handbook of research on the education of young children. New York: Macmillan.
- Howes, C. (1990). Can the age of entry into child care and the quality of child care predict adjustment in kindergarten? *Developmental Psychology*, 26 (2) 292–303.
- Kisker, E., Hofferth, S., Phillips, D., & Farquhar, E. (1991).

 A profile of child care settings: Early education and care in 1990.

 Princeton, NJ: Mathematica Policy Research, Inc.
- Love, J., Schochet, P., & Meckstroth, A. (1996). Are they in any real danger? What research does—and doesn't—tell us about child care quality and children's well-being. Princeton, NJ: Mathematica Policy Research, Inc.
- Vandell, D. L., & Corasaniti, M.A. (1990). Variations in early child care: Do they predict subsequent social, emotional, and cognitive differences? *Early Childhood Research Quarterly*, 5, 555–572.
- Whitebook, M., Howes, C., & Phillips, D. (1990). Who cares? Child care teachers and the quality of care in America. Final report of the National Child Care Staffing Study. Oakland, CA: Child Care Employee Project.

Research & Policy Briefs NCEDIA

Research and Policy Brief on topics of interest in the field.

This quarter's paper by John M. Love, Ph.D. at Mathematica Policy Research, Princeton, N.J. focuses on quality in early childhood programs.

N SUMMARY, Love said an examination of three dozen major child care studies over the past 20 years clearly demonstrates strong, positive relationships between a variety of quality measures and various dimensions of children's development and well-being. In both center-based child care and family child care homes, research shows that higher levels of quality are associated with enhanced social skills,

reduced behavior problems, increased cooperation, and improved language in children.

There appear to be no detrimental effects on infants' attachment relationships with their mothers so long as mothers provide adequate attention while their babies are at home.

Longitudinal studies have found some of these benefits—in both the social and cognitive domains—persist into the elementary-school years.

The dimensions of quality that are most strongly associated with enhanced child well-being include structural features of the child care setting and caregiver-child dynamics. Although the dynamics of the caregiver-child relationship are the heart of quality, structural features of child care provide the foundation for higher-quality dynamics, justifying the increased costs that smaller ratios and group sizes entail.

A copy of Love's complete Research and Policy Brief may be by obtained by writing Publications Office, FPG Center-UNC-CH, Campus Box # 8185, Chapel Hill NC 27599-8185. Complete briefs also are on NCEDL's home page at http:// www.fpg.unc.edu/ncedl>. Love's brief is also based on the paper "Are they in any real danger?" available by writing Librarian, Mathematica Policy Research, Inc., P.O. Box 2393, Princeton, NJ 080543-2393 or emailing the following address: <jwatterworth@mathematica-mpr.com>.

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