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Evidence-based Practice

news

Camille Catlett Honored by the Division for Early Childhood



Camille Catlett, an FPG investigator, received the 2006 Mary McEvoy Service to the Field Award from the Division for Early Childhood (DEC) of the Council for Exceptional Children. DEC is the largest international professional organization dedicated to improving educational outcomes for children ages birth to eight with exceptionalities, students with disabilities, and the gifted.

The award recognizes Catlett's significant contributions to improve the lives of young children with special needs around the globe, their families, and those who work on their behalf.

FPG Employee Ruth Miller Receives State Employees' Award for Excellence



Ruth Miller, FPG special services coordinator, received a 2006 North Carolina State Employees' Award for Excellence, the highest honor a state employee may receive.

Miller has been a state employee for 14 years. She currently coordinates a high quality program of services for children with disabilities at the FPG Child Care and Family Program. The award acknowledges outstanding accomplishments that do not fall entirely within the scope of normal duties, but are in the nature of a major contribution reflecting credit on the person and state service.

FPG Director Recognized for Special Education Work



In recognition of his contributions to special education, FPG Director Samuel L. Odom received the 2007 Outstanding Research Award from the Council for Exceptional Children. Dr. Odom has dedicated his career to studying preschool inclusion and peer social interaction. His work has led to important changes in practice, perhaps most significantly in advancing preschool inclusion as the norm in many states.

"Sam has been one of the most influential researcher and thinkers in early childhood education in the past 25 years," said Steve Graham, Currey Ingram Professor of Special Education at Vanderbilt University. "His contributions have shaped the way we think about special education services for young children with disabilities."

The CEC Special Education Research Award recognizes an individual or research team whose research has made significant contributions to the education of exceptional children and youth.

FPG. Advancing knowledge. Enhancing lives.



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early developments

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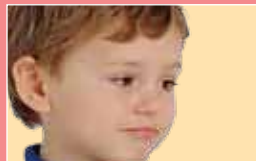
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Evidence-Based Practice

Recognizing Different Ways of Knowing

THIS ISSUE of *Early Developments* examines a relatively new phenomenon in the early childhood field called *evidence-based practice*. Although the early childhood field has not reached consensus yet on exactly what evidence-based practice means, the phrase has swept across many different disciplines and fields, both in the United States and abroad. Most people intuitively understand that the term is associated with the push for evidence that emanates from public policies such as No Child Left Behind. Others may see the term as reinforcing the need to rely on evidence to solve practice dilemmas and to make critical decisions about which services and supports should be provided to young children and their families. But what does evidence-based practice really mean and what effect will it have on the early childhood field?

Along with several of our colleagues, Pat Wesley (FPG senior scientist) and Patricia Snyder (a researcher at Vanderbilt University), we proposed the following definition of evidence-based practice for the early childhood field in the recently published *Evidence-based Practice in the Early Childhood Field*: “a decision-making process that integrates the best available research evidence with family and professional wisdom and values.”

At the heart of this definition and what represents the most dramatic shift from previous thinking is the notion that evidence-based practice is essentially a process—a way of empowering individuals to deliver the most effective interventions on behalf of children and families. Some of the previous attempts to connect the disparate worlds of research and practice have focused primarily on products (not process) in the form of recommended practices, program standards and other written guidelines—general guidance that may or may not be appropriate in every case when applied to local decisions about a particular child or family.

The proposed definition recognizes that there are different paths to knowledge. Although research knowledge is a key foundation on which to build a knowledge base for the early childhood field, some have suggested that more emphasis be given to other forms of knowledge. Professional wisdom is a particular type of knowledge that is based on experiential learning, situated in practice, and influenced by one’s personal beliefs and values, as well as those of the families and communities served in early childhood programs.

This issue features several FPG projects that have adopted an evidence-based approach to their work. The first article describes a project co-directed by Mary Ruth Coleman and Virginia Buysse (both FPG senior scientists). This initiative focuses on building an evidence base for an emerging early childhood practice called Recognition & Response, an approach designed to help parents recognize 3- and 4-year-olds who exhibit early signs of learning difficulty and to respond in ways that positively alter a child’s learning trajectory. The Recognition & Response project provides one example of how an evidence-based framework can





Virginia Buysse, FPG Senior Scientist
Pam Winton, FPG Senior Scientist & Director of
Outreach

be used in collaboration with key stakeholders to develop innovations in the early childhood field. The challenge of finding support for an emerging area of practice that has not been formally evaluated through scientific research is one that many in the early childhood field face.

The second article illustrates what happens when evidence-based practice becomes a guiding principle for a newly funded project at FPG, the National Professional Development Center on Inclusion, directed by Pam Winton,

FPG senior scientist and director of outreach. Assisting states in developing an integrated professional development system across various agencies, disciplines, and existing training programs is an enormous endeavor in its own right. Add to this mix an attempt to define what it means to be a highly qualified teacher or specialist in an inclusive early childhood program and the need to identify profes-

sional competencies for both practitioners and professional development leaders (those who serve as faculty, mentors, or consultants to practitioners) and you end up with a set of tasks that is both challenging and complex. The National Center illustrates how an evidence-based approach can be woven throughout the project, from helping states demonstrate the effectiveness of their planning process to assisting classroom teachers in making sound decisions for individual children and families.

The third article is yet another example of how the reliance on evidence and different ways of knowing is shaping a new model of early schooling

for 3- to 8-year-olds called FirstSchool. Kelly Maxwell, Sharon Ritchie, and Richard Clifford, FPG co-directors of FirstSchool, are leading a bold initiative, which is rethinking children's first experience with school and the way in which new models of schooling are created. They have launched a collaborative planning process involving families, schools, the community, and representatives from FPG to develop the FirstSchool model. Local knowledge and norms will be integrated with research knowledge as well as the education field's collective wisdom and values to create a national framework for children's earliest school experiences, to develop a plan for local implementation, and to produce written materials and resources to assist efforts in replicating the FirstSchool model in other communities.

We have entered a new era of evidence that demands that we substantiate our claims about which services, supports, and models of schooling are most effective, and for whom. The primary measure of success in this new outcomes-based system is what children learn—what they know and are able to do as a direct result of their learning experiences. Becoming an evidence-based field will require that professionals pose questions and rely on evidence to make decisions about everything they do on behalf of young children and families. It is safe to say that the early childhood field is at an early stage in understanding evidence-based practice and its implications for practice. There is little doubt, however, that the evidence-based practice movement has responded to some of our most significant problems by drawing attention to the need for more scientific rigor, by promoting the systematic dissemination of what is known, and by advocating for increased participation among consumers in establishing the evidence base. As we move forward, it will become necessary to shift the focus from gathering and appraising evidence to helping consumers use this knowledge in practice. |ed|



RTI Goes to Pre-K

An Early Intervening System called Recognition & Response



“Typically, the evidence base is established retroactively through evaluation of an intervention,” said Mary Ruth Coleman, Ph.D., FPG senior scientist and project co-director. “We quickly recognized that developing the evidence base for Recognition & Response from the onset would provide a powerful lens through which to develop innovations in the field.”

Step One: Research— What Do We Know?

With little existing information on the identification of learning disabilities for three- and four-year-olds and appropriate interventions for this age group, researchers looked to the Response to Intervention (RTI) movement used with school-age children for guidance.

In the past decade, RTI has changed dramatically how schools approach children who have characteristics of learning disabilities. Previously, children had to be formally diagnosed and labeled in order to access special education services. To be labeled as learning disabled, a child had to dem-

CAN TEACHERS AND PARENTS of three- and four-year-old children recognize early warning signs of learning disabilities and intervene to mitigate or prevent the disability down the road? This was the question posed by the Emily Hall

Tremaine Foundation to a diverse group of early childhood researchers, policymakers, administrators, and practitioners. Led by the FPG Child Development Institute (FPG), the group is using the principles of evidence-based practice to come up with an answer. The result is the creation of a dynamic systemic approach to addressing the needs of young children—Recognition & Response.



onstrate a measurable discrepancy between his or her aptitude and academic achievement—something that typically does not occur until the second or third grade.

With RTI, labeling might be an end result, but not the trigger for assistance. “RTI essentially says why wait for a label? Why not intervene as soon as we see that a child is struggling to learn?” said Virginia Buysse, Ph.D., FPG senior scientist and project co-director. “If the child does well with extra support in the classroom, then the child may be able to avoid labeling and special education altogether.”

RTI emphasizes early intervening rather than waiting until children fail. Teachers use early and intensive interventions in the general education classroom before they refer children with learning difficulties for further assessment and special education services. A major premise of RTI is that early intervening can prevent academic problems for many students and determine which students actually have learning disabilities versus those whose

underachievement can be attributed to other factors, such as inadequate instruction.

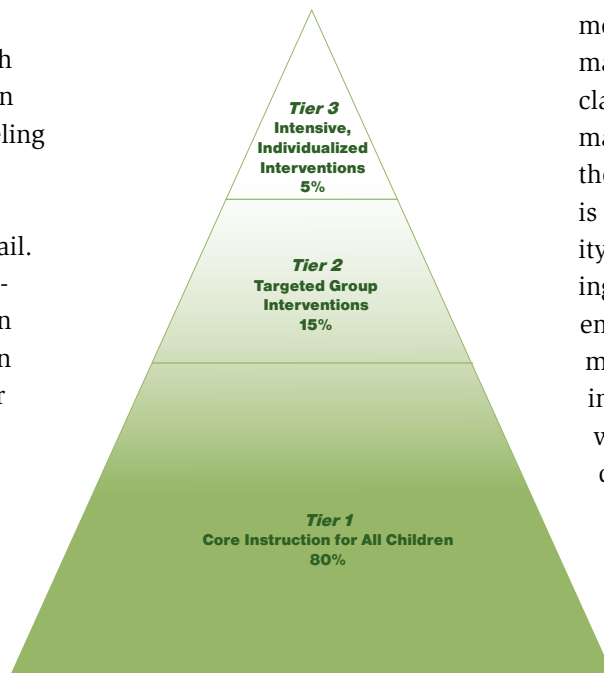
The key components of RTI (and Recognition & Response) are systematic screening and progress monitoring, the use of multiple tiers of increasingly intense interventions, and a problem-solving process to aid in deci-

sion-making. In both approaches (RTI and Recognition & Response), there is an emphasis on using interventions that have been found to be effective through scientific research and on linking assessment results to interventions that are specifically tailored to address individual needs.

In the first tier of RTI, all children in a class are screened to determine if the curriculum and instruction are meeting their educational needs. If the majority of the children in a particular classroom meet predetermined benchmarks in academics and behavior, then the general education curriculum is presumed to be of sufficient quality. For children who are not meeting those benchmarks, the teacher employs a second tier intervention by modifying the curriculum or teaching methods for these children in ways that are minimally disruptive to classroom routines.

For children whose educational needs still are not being met, the teacher uses a third intervention tier of individualized instruction. A small number (perhaps 5 percent

Three-Tier Response to Intervention Model



Adapted with permission from The National Association of State Directors of Special Education, 2005.

or less) will not respond to any classroom interventions and would be referred for special education services.

The RTI process requires collaboration between classroom teachers and specialists, continuous monitoring of individual progress, and research-based instruction and curriculum. In the past such cooperation would have been dif-

RTI. The findings suggested that RTI is effective for identifying children at risk for learning disabilities and for providing specialized interventions, either to ameliorate or to prevent the occurrence of learning disabilities.

The authors noted that the synthesis findings are limited by variability across studies in how RTI was defined,

“At every step, we had conversations with our partners about what this would look like in practice, what concerns teachers and parents might have, how the proposed system fit with current program practices and standards, and whether it made sense in the real world,” Buysse said. “We are continuing to ask these questions to make sure that our efforts are grounded in practice.”

Quality tops the list. Time and again, research has validated the importance of quality early childcare and the long-term benefits for children. Professional organizations have responded.

For example, the National Association for the Education of Young Children established a national, voluntary accreditation system to set professional standards for early childhood education programs and to help families identify high-quality programs.

School readiness is another key context that came to the forefront in 1991 with the National Education Goals Panel. The panel stated as its first goal that “all children in America will start school ready to learn.” A smooth transition to kindergarten has been identified as critical to early school success. This recognition has given birth to a movement to create public early education programs. Today, most states offer some form of public pre-K. The Tremaine partners quickly recognized the importance of linking the Recognition & Response system to efforts aimed at improving children’s school readiness outcomes.

With the passage of the Individuals with Disabilities Education Act (IDEA) in 1986, policymakers recognized the importance of early intervention. For the first time states were required to provide free and appropriate public education and related services for children ages three through five with developmental delays or disabilities (Part

RTI essentially says why wait for a label? Why not intervene as soon as we see that a child is struggling to learn?

icult because schools were not allowed to combine different sources of money to serve the same child, largely because educators faced an uphill battle to provide special education services. Policymakers feared that if money was not earmarked specifically for special education, it would be thrown into the school’s general funds at the expense of children with disabilities.

Schools are finally at a place where resources can be streamlined to maximize benefit. As a result, RTI is permitted under the new funding rules of the reauthorized Individuals with Disabilities Education Act (IDEA) of 2004.

“Children’s needs are better met if we pool resources rather than fragment them. This is the pragmatic part of RTI. It allows you to blend resources and funding so that schools can better meet the needs of all children,” Coleman said. “Children access supports in the general education classroom based on need and not a label.”

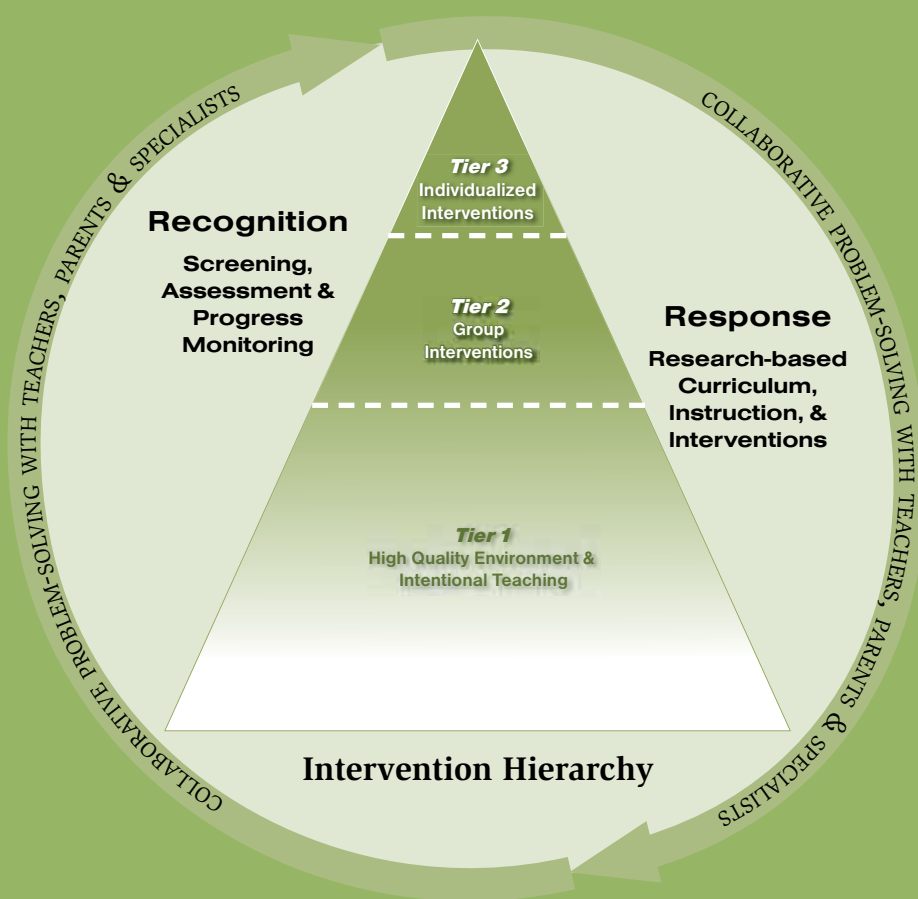
Most importantly, there are some indications that RTI is working. A research synthesis conducted by Coleman, Buysse, and Neitzel on 14 studies concluded that there is an emerging body of empirical evidence to support claims of the effectiveness of

implemented, and evaluated. Despite the limitations, the findings suggest that RTI is a promising approach, particularly because of its focus on sound instructional principles such as intervening early, using research-based interventions, monitoring student progress, and using assessments to inform instructional decisions. The authors concluded that intervening in kindergarten, and possibly earlier, is a promising practice that could produce positive outcomes for young children who are at risk for learning disabilities, but additional research is needed to evaluate the efficacy of this model for this age group.

Step Two: Critical Contexts— What’s Happening in the Early Childhood Field?

Research paints only part of the picture. Any system for preschoolers must take into account the world in which it will operate. What are the values, beliefs, and recommended practices in the early childhood field about the best way to address learning difficulties in young children and how do these fit with the proposed Recognition & Response system?

Recognition & Response System for Early Intervening



Reprinted with permission from Coleman, Buysse, & Neitzel (2006).

B-Section 619 Preschool Program). In addition, states had to develop a comprehensive system of early intervention services for children birth to three years with developmental delays or disabilities (Part C Infant-Toddler Program). The partners in the Recognition & Response initiative realized that any new system for early intervening would have to be coordinated with existing Part B-Section 619 (Preschool) and Part C (Infant-Toddler) services.

Step Three: Research and Professional Wisdom Come Together

The melding of research and the field's collective wisdom and values yielded what FPG and its partners have called

Recognition & Response. This new system is specific to the needs of young children. It is not a replica of RTI; but it does benefit from RTI's existing empirical evidence and its widespread support in the education field.

Recognition & Response is based on the premise that parents and teachers can learn to recognize early warning signs and respond in ways that positively affect a child's early school success. This effort is critical because three- and four-year-old children who exhibit the precursors of learning disabilities—impulsivity, distractibility, speech and language delays, visual and auditory processing delays, and phonological processing deficits—generally do not meet the eligibility

criteria for having a learning disability under state and federal guidelines.

The goal of Recognition & Response is to create high quality early childhood classrooms in which teachers administer periodic, universal screening for all children and research-based interventions and progress monitoring for individual children who show signs of learning difficulties.

Tier 1: Universal Periodic Screening

This tier provides teachers with the means of determining whether instruction for the whole class may need to be modified and helps them identify children who require additional supports. Teachers conduct universal periodic screening in key language and early literacy skills to (a) determine whether most children are learning in an expected manner and (b) identify children who need additional supports. Adjustments to the general education curriculum to improve program quality may be required in classrooms in which the majority of children do not meet learning benchmarks.

The project is developing a first-of-its-kind screening tool (the *Recognition & Response Observation and Rating Scale*; RRORS) that will allow teachers and parents to document observations of children in natural settings to identify potential learning difficulties.

Tier 2: Group Interventions

In tier 2, teachers provide standard research-based interventions that require minimum adjustments to classroom routines to targeted groups of children who do not make adequate progress in tier 1. Group interventions, such as teaching phoneme segmenting to three or four children with frequent opportunities to practice this skill through

Recognition & Response Partners

- Communications Consortium Media Center
- FPG Child Development Institute
- National Association for the Education of Young Children
- National Center for Learning Disabilities
- Arizona Literacy and Learning Center
- Connecticut Department of Education
- Florida Diagnostic and Learning Resource System
- Maryland Committee for Children
- Association for Children of New Jersey

embedded classroom activities, are selected from a set of standardized research-based interventions.

Tier 3 Individualized Interventions and Referral

In tier 3, teachers implement more intensive and individualized instruction for children who do not make adequate progress in tier 2. An example of a tier 3 intervention would be the teacher working individually with a child using direct instruction and prompting. Children who do not make adequate progress in tier 3 may need to be referred for formal evaluation of learning disabilities or other special needs.

To make decisions about when to move from one tier to the next or to select particular intervention strategies, teachers should rely on a collaborative problem-solving process with parents and specialists.

At this time, specific guidelines for implementing Recognition & Response do not exist, although efforts are underway to create manuals that specify each of the components and to create the tools and resources needed to implement each component as part of an integrated system.

“There are two key principles behind Recognition & Response,” Coleman added. “It is never appropriate to deny a special education label when we have the evidence that one is needed. And it is never appropriate to deny classroom support that we know would be beneficial because the label is not attached.”

Recognition & Response exemplifies an evidence-based approach to developing innovations in the early child-

hood field. Rather than being an academic exercise, this collaborative effort reflects the real challenges of moving evidence-based concepts from theory into practice. The goal of this initiative in the coming years is to develop the resources and processes that will serve as the infrastructure for implementing Recognition & Response in practice.

A research synthesis and executive summary are available at www.fpg.unc.edu/~randr/. |ed|

To learn more ...

- Emily Hall Tremain Foundation, visit www.tremainfoundation.org
- Conceptual framework for Recognition & Response, visit www.fpg.unc.edu/~randr/
- Research synthesis on Response to Intervention (RTI), visit www.fpg.unc.edu/~randr/
- National Center for Learning Disabilities' Recognition & Response web site, <http://www.recognitionandresponse.org/>
- Information on the Recognition & Response initiative, read: Coleman, M. R., Buysse, V., & Neitzel, J. (2006). Establishing the evidence-base for an emerging early childhood practice: Recognition & Response. In V. Buysse & P. W. Wesley (Eds.), *Evidence-based practice in the early childhood field* (pp. 195-225). Washington, DC: ZERO TO THREE Press.
- Collaborative problem solving, see Buysse, V., & Wesley, P. W. (2006). *Consultation in early childhood settings*. Baltimore: Brookes.

Infusing Evidence-Based Practice into Professional Development



DARIUS HAS AUTISM SPECTRUM DISORDERS (ASD) and, like most children with ASD, shows significant delays in language and social development. His pre-K teacher looked forward to working with Darius earlier in the school year.

Unfortunately, after a few months, it has become clear that Darius is not really part of the class. He spends much of his time engaged in solitary, repetitive behaviors. His occupational therapist (OT) visits the classroom once a week, sometimes for only an hour or two. She is trying to help Darius's teacher—who has no background in working with children with disabilities—learn new strategies related to embedding his therapy goals into the routines of the classroom that the teacher can use when the OT is not there.

Scenes like this are not uncommon in early childhood classrooms across the country. Although many early childhood programs enroll at least one child with special needs, teachers often have little preparation or experience in how to meet their social and academic needs. In the past decade, inclusion—educating and caring for young children with disabilities alongside their typically developing peers—has been one of the most radical and profound outcomes of federal disability legislation. Unfortunately, teacher preparation and professional development programs have not kept pace with the growth of inclusive early childhood programs in this country.

To help early childhood practitioners effectively serve all children, FPG Child Development Institute launched the National Professional Development Center on Inclusion (NPDCI)—a nationwide endeavor that will support states in the creation of an integrated system of high quality, accessible professional development for early childhood personnel. The work will be guided by an evidence-based practice framework.

Why Rely on Evidence-Based Practice?

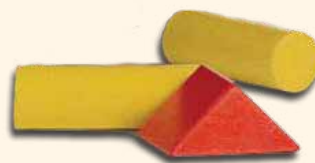
The accountability and standards movement is playing a major role in shaping American education and is increasingly influential in the early childhood realm. Teachers face new standards, new assessments and new requirements for helping all students make annual yearly progress. As a result, the preparation and support that teachers receive in fulfilling their professional roles are coming under greater scrutiny.

The traditional measures to determine the effectiveness of professional development—participant satisfaction and self-ratings of knowledge and skills—are no longer considered sufficient. Parents and policymakers are asking tough questions:

- What constitutes a highly qualified early childhood practitioner who can effectively serve all children, especially those with special needs?

- What kind of education and ongoing support is necessary and effective for creating and sustaining high quality personnel?
 - How can effective professional development be delivered across all regions of our country, including those with scant resources?
 - For whom and under what circumstances is the professional development making a difference?
 - How does professional development affect instructional practices and children’s learning and development?
- “Given the trend toward accountability, we would be negligent if we helped states design a professional development system that did not rely upon an evidence-based practice framework,” said Pamela J. Winton, FPG senior scientist.

Policymakers are beginning to take a closer look at the quality of inclusive experiences for individual children and they view professional development as the primary vehicle for achieving high quality inclusive programming and positive child and family outcomes.



Evidence-Based Practice from a Macro Perspective: Creating the System

Federal legislation now requires that states document their success in accomplishing policy goals. For inclusion, this often means determining the percentage of children in the state being served in an inclusive setting. While a useful starting point, such figures only reveal a small part of the picture. As seen in the opening vignette, to be effective for individual children, inclusion has to be more than simply having all children in the same classroom.

Policymakers are beginning to take a closer look at the quality of inclusive experiences for individual children and they view professional development as the primary vehicle for achieving high quality inclusive programming and positive child and family outcomes. They want to know what sources of evidence about professional development are relevant and credible and what weight should be given to different sources in making decisions about spending money for professional development. Faculty and trainers need evidence on what content should be delivered

to which audience, as well as the specific methods and

Partnering with NPDCI

State Selection Process

While NPDCI will serve as a resource to all states, it will work intensely with eight states in two cohorts of four states each to create a system of high quality, cross-agency professional development for early childhood personnel to support inclusion. NPDCI collaborated with the Office of Special Education Programs of the U.S. Department of Education, the Child Care Bureau and the Office of Head Start to implement a fair and equitable selection process for identifying eight states with a strong need for, and commitment to, systematically improving inclusive preschool professional development efforts.

Applications will be evaluated on the following criteria:

- Need for, and commitment to, using state resources for professional development to promote inclusion.
- Collaboration and support for involvement in NPDCI among key agencies and institutions involved in professional development of early childhood personnel.
- Collaboration and support from groups within the state providing support and professional development to families (e.g., Parent Training and Information Centers/PTIs, state Associations for Retarded Citizens/ARCs, state Developmental Disabilities Planning Councils).
- Collaboration and support for the participation of culturally, linguistically and ability diverse participants.
- State priorities or initiatives for preparing personnel that could be complemented by the NPDCI.
- A history of the state using external resources as a catalyst for positive change.
- Identification of a strong committed person within the state who will work with the NPDCI in a liaison position as part of their ongoing work responsibilities.

NPDCI Team

- Pam Winton, Principal Investigator
- Virginia Buysse, Co-Principal Investigator
- Camille Catlett, Co-Principal Investigator
- Shelley deFosset, Co-Principal Investigator
- Wanda Weaver, Project Coordinator

For more information, visit www.fpg.unc.edu/~npdci.



circumstances that best bring about positive changes in individual and program practices. Practitioners and parents need research-based information that is widely available and accessible and related to everyday dilemmas they face in caring for and teaching their children.

NPDCI will help states find ways of using evidence to make informed decisions in this new era of accountability. As a starting point, NPDCI will address a fundamental question: What do practitioners need to know and be able to do to achieve desired child outcomes related to inclusion?

While this approach may seem intuitive, it often counters current practice. Today, many states approach professional development in a haphazard, piecemeal manner. There might be multiple disconnected early childhood professional development initiatives sponsored by different agencies and organizations. Most initiatives ignore the critical link between child outcomes, teacher competencies and professional development.

An evidence-based practice framework demands more systematic attention to each of these components and how

Evidence-Based Practice in Action

Below, we present more information about a vignette introduced at the beginning of this article, followed by the steps that a practitioner might use to resolve the practice dilemma using an evidence-based approach.

The Situation

Ms. Lorenzo, a pre-kindergarten teacher, observes Darius as he continues to play alone in the block area even though it is clean-up time. Darius has autism and his needs are significant. His speech is unintelligible and he engages in solitary, repetitive behaviors much of the time. Ms. Lorenzo is still getting to know Ms. Clark, the occupational therapist, who works with her to address Darius's individual needs. Ms. Lorenzo had assumed that Ms. Clark would provide Darius with intensive one-on-one therapy to address his developmental goals. But Ms. Clark, who only visits the classroom once a week, primarily focuses on helping Ms. Lorenzo identify her concerns and develop strategies that she can use with Darius in Ms. Clark's absence.

The Parents' Perspective

Darius's parents are thrilled that their son is enrolled in Ms. Lorenzo's pre-kindergarten class. The family chose this inclusive classroom for Darius because they hoped he would learn how to get along with other children and form friendships.

The Occupational Therapist's Perspective

The occupational therapist believes that her primary focus should be on helping the teacher learn new strategies for embedding intervention strategies into the routines of the classroom during the times when she is not there.



Application of the Five-Step Process to Resolve the Problem

The Administrator's Perspective

The administrator wants inclusion to work. She wants to make sure that Ms. Lorenzo gets the support she needs to work effectively with Darius in the classroom.

The Teacher's Perspective

Ms. Lorenzo's primary question concerns the effectiveness of the current approach of integrating Darius's IEP goals into regular classroom routines and activities rather than providing him with one-on-one therapy time. It seems to Ms. Lorenzo that finding a quiet place for Ms. Clark to work individually with Darius on specific goals would be a better use of everybody's time. She questions how effective it will be for her to learn new strategies and techniques from Ms. Clark and then find the time to apply them when she has so many other children in her classroom to consider.

1. Ask an answerable question. In this case, the question is: In young children with autism, will integrated therapy compared to pull-out therapy result in improved developmental outcomes?
2. Find the best available research evidence. In this case, resources include:
 - Humphries, T. (2003). *Effectiveness of Pivotal Response Training as a behavioral intervention for young children with autism*. www.evidencebasedpractices.org/bridges/bridges_vol2_no4.pdf
 - Success. (2003). *Bottomlines*, 2(4). www.evidencebasedpractices.org/bottomlines/bottomlines_vol2_no4.pdf
 - Bovey, T., & Strain, P. *Strategies for increasing peer social interactions: Prompting and acknowledgment*. www.csefel.uiuc.edu/briefs/wwb17.html
 - *DEC Recommended Practice C25* (Sandall, Hemmeter, Smith, & McLean, 2005)
3. Appraise the evidence quality and relevance. As practitioners and families review the information above, they will need to be critical readers—not trusting everything that they read. It is imperative to ask questions about the source of the information, the review process that shaped the information, and the methodologies used to generate the information.
4. Integrate research with values and wisdom. An evidence-based practice approach can help in considering each of the various sources of evidence, but it does not provide specific guidance on how to weigh the evidence or how to integrate these sources in a way that points to a specific action. This aspect of the five-step process is the most complex and is an area where future development of the concept and process is needed.
5. Evaluate. Has the practice resulted in Darius being better able to participate in classroom routines?

they relate to each other. For professional development, it recognizes that the starting point is identifying or defining outcomes for children and families. Once outcomes are identified, there is a need to determine the professional competencies needed to achieve these outcomes. These skills and teaching practices help inform the content and format of professional development. Furthermore, professional development should provide a structure for practitioners to consider the three elements of evidence-based practice—best available research, professional and family wisdom, and professional and family values—to make informed practice decisions. This approach promotes the idea that we start with the best available research and integrate that with wisdom and values.

Implementing such an approach is no small task. While NPDCI will serve as a resource to all states, the center will select eight states for more intense collaboration. All states and U.S. territories are eligible to apply. Information on the state selection process and an application packet are available at the website. In each of the eight states NPDCI will convene a cross-agency group of leaders with the money and authority to plan, implement and evaluate professional development. NPDCI will facilitate a process to generate consensus on definitions, professional development approaches, and measurement strategies related to:

- outcomes for children and families;
- teaching and intervention practices that lead to those outcomes;
- organizational, policy and contextual factors that affect implementation;
- competencies for practitioners; and
- professional development strategies that align with those competencies, practices and outcomes.

Without those agreed upon definitions and measurement systems, it would be nearly impossible to evaluate the impact of professional development.

Evidence-Based Practice from a Micro Perspective: Daily Decision-Making

Just as evidence-based practice will guide decisions about creating a professional development system, it also must guide decision-making in practice settings. Practitioners need to know about research and learn how to integrate research findings with their experiences and deeply held

beliefs in a way that informs decisions. Bridging this gap between research and practice is at the heart of evidence-based practice.

To do this, practitioners will need easy access to research. In the past few years, several groups have published research syntheses designed to provide practitioners with summaries of the latest findings on a given topic. These efforts are a significant first step. A second step is helping practitioners become aware of these resources and developing their ability to critically appraise the quality of the syntheses. Then practitioners will need to learn how to solve practice dilemmas by integrating the best available research with professional and family wisdom and values. Unfortunately, there are only a small number of syntheses currently available and a large number of daily decisions that practitioners need to make.

In order for NPDCI to meet the ultimate goal of helping practitioners adopt an evidence-based practice approach to decision-making, the project will need to work with those who deliver or support professional development. NPDCI will work with the faculty, consultants, trainers, mentors, coaches, supervisors and others offering support and technical assistance so that their efforts reflect the most promising approaches to professional development and research-based content knowledge on intervention practices related to inclusion. NPDCI will not only help states to create a systematic approach to professional development, but also ensure that it is based on a meaningful evidence-based practice framework. |ed|

For professional development, evidence-based practice recognizes that the starting point is identifying or defining outcomes for children and families.



For more information

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Creating a New Vision of Early Education



HOW ARE PUBLIC SCHOOLS CREATED? Who decides what the building will look like? What the curriculum will be? Who will attend? Will it serve three- and four-year-olds? Typically these decisions are made by the school district's administration.

Now consider a different scenario. Teachers, administrators, higher education faculty, researchers, parents, and community leaders come together to build a school that reflects the best available research in concert with the needs and values of the community and the experiences of educators. This is the novel approach guiding the creation of FirstSchool.

FirstSchool is an initiative led by the FPG Child Development Institute (FPG) at The University of North Carolina. It will provide a framework for uniting the best of pre-kindergarten education and early elementary education to serve young children ages three through eight and their families.

Today, a quarter of all four-year-olds are educated and cared for in public schools. To ensure that pre-kindergarten does not simply become another layer in the K-12 public schools in which young children have to “fit” into the current school system, FPG is calling for a new vision of early school for children ages three to eight.

From the outset, FirstSchool has operated within an evidence-based framework.

“We understand that success depends upon engaging in a collaborative process that integrates the best available scientific research about early schooling with the wisdom and values of families, practitioners, the early childhood community, public schools, and a wide range of individuals and agencies that are invested in positive outcomes for children,” said Kelly Maxwell, FirstSchool co-director. “We are not just talking about these ideas but, instead, are really working to use this framework in all of our decisions.”

One only has to take a look at FirstSchool’s work to date to see that this is so.

In June of 2005—immediately following receipt of a planning grant from the W. K. Kellogg Foundation and the Foundation for Child Development—FPG organized a symposium that included parents, early childhood teachers, public school teachers, administrators, and state leaders. The purpose of the symposium was to begin gathering ideas about the critical elements of a new model of early schooling from all of these stakeholders. The group of more than 80 participants discussed such issues as:

▲ What helps ensure that children’s first experiences in formal public schooling are positive for children, families, and schools?

▲ What are effective ways of engaging families in all aspects of their children’s education?

▲ Who are the key partners and connections that FirstSchool should develop within the community?

This discussion informed the structure of the planning process. FirstSchool created nine planning committees, including business; comprehensive school health and wellness; curriculum and instruction; diversity; evaluation and research; facilities; families, communities and outreach; professional development; and school transitions. Public school teachers and administrators, members of the early childhood community, and parents joined FPG and UNC staff to serve on these committees. Each committee will write a concept paper that integrates the empirical evidence base for their area and discusses issues and recommendations based on their collective experiences, wisdom and values. All of these papers will be grounded in practice—highlighting educational practices that show promise or have been found to be effective through research.

“Dialogue is vital in the FirstSchool planning process,” said Sharon Ritchie, FirstSchool co-director. “But it’s not enough. We have to be willing to incorporate opinions and expertise from a very diverse group of people. It’s one thing to listen to someone’s voice, and another to give it value. FirstSchool needs to embrace and reflect this community. When it opens its doors, FirstSchool will be an entity that could not have been created without everyone coming together.”

Even the website demonstrates the value of diverse perspectives and the process FPG hopes to undertake throughout this work. After working long and hard on language for the site, researchers took the text to the

Families, Communities, and Outreach Committee. “They immediately had different ideas; things we would not have thought of,” Maxwell noted. “It changed the message for the better.”

Bringing together different groups from the community is only part of the effort. FirstSchool also will connect professionals throughout the country who usually do not find themselves in the same room. In 2007, FPG and the Society for Research in Child Development will launch a seminar series bringing together developmental psychologists and educators. The seminars will explore ways that knowledge of children’s development can be used to inform the design of schools, curriculum and instructional practices for young children.

As the examples above demonstrate, evidence-based practice permeates every level of the FirstSchool initiative. “I hope that FirstSchool—by using this evidence-based practice framework to bring diverse perspectives together—not only changes the face of schooling for children three through eight and their families but also changes the way decisions about the education of these young children are made,” Maxwell concluded. |ed|

For more information

FirstSchool

www.fpg.unc.edu/~firstschool/

Foundation for Child Development

www.fcd-us.org/

W. K. Kellogg Foundation

www.wkcf.org



Dr. Samuel L. Odom, New Director of FPG

ON AUGUST 1, Dr. Samuel L. Odom became the fifth director of FPG Child Development Institute. He succeeds Don Bailey, who had led the institute since 1992.

Dr. Odom comes to FPG from Indiana University where he was the Edward and Mary Lou Otting Professor and coordinator of the special education program. He is no stranger to Carolina however. He previously served as the William C. Friday Distinguished Professor of Child Development and Family Studies from 1996 to 1998 and led the effort to establish a Ph.D. program in early childhood, families, and literacy.

His research has focused on the needs of young children with developmental disabilities, and he is highly regarded nationally for his work with young children (birth to 5 years old), peer social relationships, autism spectrum disorder and school readiness.

“Dr. Odom is a leading figure in child development,” said Dr. Tony Waldrop, vice chancellor for research and economic development at UNC. “He was an exceptional leader for Indiana, and he becomes a key contributor to our efforts at Carolina to be the nation’s leading public research university.”

Odom, a Nashville, Tennessee native, earned three degrees from the University of Tennessee before receiving his doctorate in special education from the University of Washington in 1982. In addition to UNC and Indiana, he has served on the faculty at Vanderbilt University.

Here, Dr. Odom discusses some of his thoughts about his new position and elaborates about his background.

What brought you back to North Carolina and FPG Child Development Institute?

I am at the point in my career where I am interested in being in a leadership position in research. I have spent the last several years in academic and teacher education programs, but research has always been my first interest. However, the big draw was FPG itself. It is unique in its research contributions to the field, its translation of research to practice, and the outreach and technical assistance it provides. As director of FPG, I have the opportunity to work with extraordinary and very talented researchers in the field and people providing technical assistance to early childhood educators and caregivers.

Also, I really missed the south. I grew up in Nashville. My first faculty position was at Vanderbilt's Kennedy Institute. I was a professor at UNC. It is nice to be home.

What compelled you to pursue a career in early childhood education?

My undergraduate degree is actually in psychology. As part of my major I took classes in what was then called "Abnormal Psychology;" today it's called "Developmental Psychopathology."

Studying mental illness piqued my interest in special education, and I took several classes in special education while an undergrad, and eventually I pursued a master's degree in the field. This field provided the opportunity to work directly with people and to address individuals' unique needs.

An experience in Colorado solidified this interest. I was working at a ski resort in Colorado after I finished my undergraduate program. There was a program there that taught people with disabilities to ski. There was a man about my age who was blind from an injury from the Vietnam War. I got to know him well. Watching his determination and ability to overcome his disability was the final push to pursue special education as a career. In my Masters program, I then had the opportunity to work with young children. There is an optimism and joy-of-life in early childhood that drew me to this age range.

What was your first job?

I was a preschool teacher in Tennessee. Around 1976, I worked in the eastern part of the state in the mountains. I spent half of my time in a resource room working with children with learning disabilities and the other half of my time going to the homes of children with disabilities—children who could not participate in the existing education programs or lived in areas where the schools

High Quality Research and Evidence-Based Practice in Special Education

Sam Odom, FPG's new director, helped establish guidelines to form the evidence base for special education practices. He and his colleagues on the task force created by the Division for Research of the Council for Exceptional Children established quality indicators for research in special education.

The task force identified four types of research methodology that could inform the evidence base of practice: experimental group design, single subject design, correlational, and qualitative research. For each method, they proposed features that represented high quality research. These quality indicators were intended to be a guide for researchers who were planning high quality research as well as reviewers and consumers who wished to evaluate the quality of a research study. For each research methodology, the Task Force established guidelines for the quantity and quality of research needed to determine a practice as evidence-based.

These quality indicators and guidelines are now being used to assist organizations, funding agencies, and individuals in evaluating the quality of research about educational practice and determine the degree to which a practice does indeed have empirical evidence of effectiveness.

To learn more...

Graham, S. (Ed.). (2005). Criteria for evidenced-based practice in special education [Special issue]. *Exceptional Children*, 71(2).

Odom, S., Brantlinger, E., Gersten, R., Horner, R. D., Thompson, B. & Harris, K. (2004). *Quality indicators for research in special education and guidelines for evidence-based practices: Executive summary*. Bloomington: University of Indiana, CEC Division for Research. Available from http://education.uoregon.edu/grantmatters/pdf/DR/Exec_Summary.pdf

did not have special education classes. By the end of the first year, I established a preschool classroom for children with disabilities in this very rural community. At that time, the federal mandate for providing special education was just beginning. It was one of the first programs for children with disabilities in the school system.

Why did you make the transition from teacher to researcher?

While I was teaching, I still took college classes because I enjoy learning new things, and I earned an Ed.S. degree in educational psychology. During my classes, I was exposed to research being conducted at the university. And, I had to do to a thesis, so now I was actually involved in doing research in my own classroom. My first research was on play of preschool children with developmental disabilities. It really sparked my interest, and I wound up applying for graduate school. I attended the University of Washington for my doctorate degree.

What do you do to stay connected to young children and their caregivers and educators?

During my prior stint in North Carolina, I conducted research at FPG's childcare center. While I was at Indiana University, I made it a priority to connect with local teachers. For example, while on sabbatical, I worked on a project with Head Start centers throughout the northwestern part of the state. Once a week, I would go to a program in Crawfordsville, Indiana and spend time in the classroom as a teacher's assistant. This helped me to understand how the curriculum was working.

What do you think will be the most important early childhood research questions in the next 25 years?

That's a broad question. Different areas of early childhood are moving in important directions. One important direction actually is a major initiative at FPG (FirstSchool)—designing programs that address the needs of young children in ways that prepare them to be successful when they enter school. This is about more than the transition between classrooms and buildings. It's about the curriculum and broader experiences. There are issues related to instruction, health, and cultural and linguistic diversity. This is a significant challenge for our country at large. There is a steady movement toward providing early childhood education, but it is extremely important that there is a continuous process for doing so.

FPG is unique in its research contributions to the field, its translation of research to practice, and the outreach and technical assistance it provides.

For the children that I just described, the emphasis has been on age three and up. However, another important area relates to infants and toddlers. Neuroscience and developmental science show the importance of very early experiences—including health and nutrition—in brain development. We will need to blend this knowledge into the practical application of early care and education at the infant level. It's easy to see that this has been recognized at the federal level with the investment in Early Head Start and services for infants and toddlers with disabilities through Part C of IDEA.

For children with disabilities, we will continue to emphasize the need to design effective programs for young children that respond to the needs of families. Providing these services in a natural environment and inclusive setting is an essential feature.

In general and special education, we will need to pursue practices that have support in research. The evidence-based movement has been building for the past five years and will continue to grow. The implications for researchers is that we need to be attentive and responsive to the need for knowledge about effective practices and how that translates into practical applications that teachers and families can use.

Describe FPG's contribution to the early childhood development field?

FPG has helped shape the early childhood development field in very positive ways—beginning with the Abecedarian Project. Early on FPG (along with other sites) provided an empirical foundation for the field. Its work in assessing the quality of early childhood education and the association between quality and outcomes for children has had a major impact on the field. And it has directly shaped early childhood special education and intervention in this country.

As we look ahead, FPG will continue to address the needs of young children and school readiness. Much of our work will focus on prevention issues. And children with disabilities and their families will continue to be a hallmark of our research and outreach efforts.

In addition, FPG will seek to extend our contributions in research and collaboration to the international level. We are already doing this to some extent. Our challenge will be to connect with research at other centers like FPG that exist around the world and look for opportunities to collaborate on cross cultural research and training. |ed|

U.S. Department of Education Grant Extends NECTAC Through 2011

The U.S. Department of Education awarded FPG Child Development Institute a five-year, \$15 million grant to continue its National Early Childhood Technical Assistance Center (NECTAC). NECTAC serves as the U.S. Office of Special Education Program's national resource for states on implementing the Individuals with Disabilities Education Act (IDEA), particularly the early childhood provisions.

"NECTAC is emblematic of FPG's 40-year history of helping the nation expand, strengthen, and improve services to children with disabilities and their families," said Pat Trohanis, director of NECTAC. "This grant allows us to continue to work with states to tackle tough societal service problems for young children so that they can participate fully in community life with dignity and respect."

NECTAC has evolved since its original grant in 1971 from the then U.S. Office of Education. Today NECTAC reaches approximately one million children by working with states and other partners on quality assurance procedures which include families of various cultural and linguistic backgrounds; coordination of multiple funding sources to assure that all children receive services regardless of income; recruiting high quality personnel; improving coordination among multiple agencies; developing tools for early identification of eligible children; involving families; promoting inclusion; and developing effective practices that address each child's unique needs.

For more information, visit www.nectac.org.

recent grants

FPG Fellow Receives \$6.2 Million Grant to Study Achievement Gap in Minority Boys

A Fellow at the FPG Child Development Institute has received a \$6.2 million grant from the W.K. Kellogg Foundation to develop and analyze ways to combat academic underachievement problems for minority boys.

"The problems of boys of color represent one of the most significant challenges we face as a nation," said Dr. Oscar Barbarin, FPG Fellow and the L. Richardson and Emily Preyer Bicentennial Distinguished Professor for Strengthening Families in the UNC School of Social Work. "Many communities have expressed concern and some are attempting to address the problem, but most of these efforts are limited in focus and do not address the full array of systems that contribute to the problems."

The five-year grant will support the Promote Academic Success (PAS) Initiative, which builds on Barbarin's previous research on educational outcomes and achievement gap issues for young African-American and Latino children. The project's goals are to mobilize and support partnerships among Head Start, public schools, families and community agencies to focus on and improve the academic and social development of boys of color between 3 and 8 years old. The researchers will identify and report the most promising multi-systemic (family, school, community) interventions.

Studies have shown that achievement gap problems for boys of color begin in



early childhood, Barbarin said. They face significant challenges with respect to academic achievement and socio-emotional adjustment. Consequently, their prospects for reaching adulthood with the skills needed to participate in society are severely diminished. This not only represents a significant problem for boys and their families but also imposes significant costs to society, Dr. Barbarin added.

The PAS Initiative will identify three to five communities nationwide that have demonstrated readiness to address achievement gap issues. Community selection will be based on several factors including population size and the existence of current partnerships between school districts, families and community organizations. Once the PAS program has identified partnering communities, it will assist all groups involved in designing and implementing interventions within families, classrooms and communities that fit with local circumstances and resources.

The award is the Kellogg Foundation's largest grant to UNC to date. Marvin McKinney, program director for youth and education with the Kellogg Foundation said, "Usually we don't make grants of this size; however, we saw this as an opportunity to build upon work we have already started with young children at different sites around the country."

Additional grants awarded to date in this fiscal year...

FPG Receives Grant to Create National Professional Development Center on Inclusion

FPG was awarded a \$2.5 million five-year grant from the U.S. Department of Education to establish the National Professional Development Center on Inclusion.

The number of 3- to 5-year-olds with disabilities in regular classrooms has been on the rise for the past decade—increasing by 32 percent between 1992 and 2001, according to the U.S. Office of Special Education Programs.

“We are creating this national center to improve the quality and accessibility of rigorous, ongoing professional development, training and technical assistance for early childhood personnel,” said Dr. Pam Winton, senior scientist and director of outreach at FPG.

While the center will serve as a resource to all states, FPG plans to select eight states for more intensive technical assistance.

For more information, see the article on NPDCI in this issue and visit www.fpg.unc.edu/~npdci.

Children with Down Syndrome and their Mothers' Responses to Communication Breakdown

This study is examining maternal and child linguistic behaviors related to requests for clarification during communication breakdowns in children with Down syndrome and children who are typically developing.

Funder: National Down Syndrome Society
Principal Investigator: Joanne Roberts
Duration: 7/1/06 – 6/20/08

Language and Autism in Boys with Fragile X Syndrome

This study examines whether noncontingent language, perseveration, and persistent questions-asking are specific to the conversational discourse of boys with FXS or to autism in general.

Funder: National Fragile X Foundation
Principal Investigator: Joanne Roberts
Duration: 11/1/06 – 10/31/08

Developmental Trajectories of Young Maltreated Children

The project will analyze the developmental and behavioral patterns among young children entering Child Welfare Services (CWS) and their developmental trajectories across multiple waves of the National Survey of Child and Adolescent Well-Being (NSCAW) data.

Funder: Office of Planning, Research and Evaluation of the Administration for Children and Families at the U.S. Department of Health and Human Services
Principal Investigator: Anita Scarborough
Duration: 10/1/06 – 2/28/08

PFI Technical Assistance

Partnerships for Inclusion, a statewide technical assistance project in North Carolina, promotes the inclusion of young children with disabilities, birth through five years, and their families in all aspects of community life.

Funder: North Carolina Department of Public Instruction, North Carolina Division of Child Development and the Early Intervention Branch at the NC Department of Health and Human Services
Principal Investigator: Patricia Wesley
Duration: 10/1/06 – 6/30/07

Fathers Play Significant Role in Language Development of Young Children

In families with two working parents, fathers make important contributions to children's early language skills. Results from a new study by FPG Child Development Institute show that children whose fathers' vocabulary was more varied when the children were two, had greater language skills at age three. Mother's vocabulary was not found to have a significant impact on children's language skills. The findings are published in the November/December 2006 issue of the *Journal of Applied Developmental Psychology*.

To Learn More

- Pancsofar, N., & Vernon-Feagans, L. (2006). Mother and father language input to young children: Contributions to later language development? *Journal of Applied Developmental Psychology*, 27(6), 571-587.
- www.fpg.unc.edu/~snapshots/snap34.pdf

Evidence-Based Practice Sweeps through Early Childhood Field

The phrase "evidenced-based practice" is becoming standard vocabulary in the early childhood field, yet there is no consensus on its definition. The authors of a new book, *Evidence-Based Practice in the Early Childhood Field*, propose a definition of the concept and discuss how it can help early educators, special educators, child care professionals, and others to transform the services provided to children and families. A companion article in the fall 2006 issue of *Young Exceptional Children* also outlines the foundation of this new movement and applies it to solve a practice dilemma.

To Learn More

- Buysse, V., & Wesley, P. W. (Eds.). (2006). *Evidence-based practice in the early childhood field*. Washington, DC: ZERO TO THREE Press.
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- www.fpg.unc.edu/~snapshots/snap33.pdf
- This definition from the authors is cited on the NAEYC website (www.naeyc.org/resources/research/).

research highlights

To make our research accessible, FPG produces one-page *Snapshots* for many published articles and books. *Snapshots* can be downloaded at www.fpg.unc.edu

Accountability Movement Pushes States to Define Outcome Standards for Pre-K Children with Disabilities

With no single definition of how publicly-funded programs for preschool children with disabilities should define or measure success, states are struggling to develop accountability systems that demonstrate results and understand how to best serve children and families. With the accountability movement finally trickling down to the preschool setting, leaders in early childhood development must set aside territorial differences to provide a collaborative set of recommended child and family outcome standards, according to the

authors of the report, "Issues in Designing State Accountability Systems," published in the *Journal of Early Intervention*.

To Learn More

- Harbin, G. L., Rous, B., & McLean, M. (2005). Issues in designing state accountability systems. *Journal of Early Intervention*, 27(3), 137-164.
- www.fpg.unc.edu/~snapshots/snap32.pdf

Early Childhood Teachers Often Ill Prepared to Care for Children with Disabilities

While many preschool classrooms enroll at least one child with a disability, teachers often have little or no training in educating and caring for these children. A survey of those overseeing early childhood teacher preparation programs reveals that even though early intervention and special education is part of many programs' missions, coursework and training often fall short, according to new research published in the *Journal of Early Intervention*.

To Learn More

- Chang, F., Early, D. M., & Winton, P. J. (2005). Early childhood teacher preparation in special education at 2- and 4-year institutions of higher education. *Journal of Early Intervention*, 27(2), 110-124.
- www.fpg.unc.edu/~snapshots/snap31.pdf

FPG's research is featured in the most respected peer-reviewed journals and publications. Below is a list of recent citations. A complete list of citations is available online at www.fpg.unc.edu under products.



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