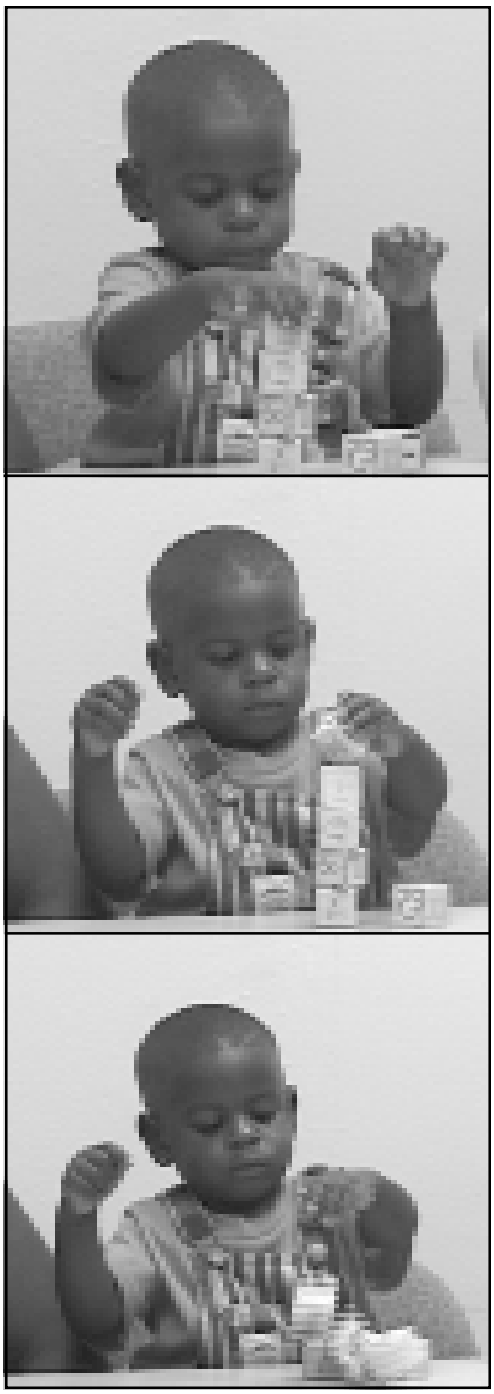
FIRST BIRTHDAY Report

FIRST WORDS Project

Progress Report for Healthcare and Childcare Providers of Infants and Toddlers

OUR MISSION



FIRST WORDS Project is a model early identification and intervention program based in the Department of Communication Disorders at Florida State University. Staffed by speech-language pathologists and interdisciplinary consultants, we are funded to evaluate the communication development of children from 6 to 24 months of age in Leon County. For children who are delayed in communication development, we offer families a menu of service options. Services are offered at no cost to families or service providers, based on availability of grant funds. In addition to services provided in Leon County, we are developing educational materials for training of healthcare and childcare providers to build their capacities for earlier detection of communication problems in young children.

The goals of FIRST WORDS Project are:

- to demonstrate the effectiveness of our early identification and intervention program in Leon and surrounding rural counties;
- to provide educational materials and technical support to increase referrals made by healthcare and childcare providers for communication evaluations of children under the age of 2 years; and
- to provide educational materials and technical support to increase the capacities of families and service providers to enhance early communication in young children.

The service delivery model of FIRST WORDS Project is based on principles of family-centered practice.

We incorporate family-centered principles by:

- starting with family members' own perceptions of their child's strengths and needs;
- respecting family members' priorities and preferences;
- planning for active participation of family members in assessment and intervention;
- building consensus on expectations and goals for their child; and
- sharing decision-making to build the family's capacity to support development in their child.

THE PROBLEM

There is mounting evidence that intervention beginning during infancy or preschool age has a greater impact on outcomes for children and families than intervening at school age (Barnett & Escobar, 1990). Recent federal legislation has documented the national priority of early intervention and established financial incentives for states to serve infants and toddlers. It is estimated that every dollar spent on early intervention can save $7.16 in later special education, crime, welfare and other costs (Florida Starting Points, 1997).

In spite of federal legislation and funding for early intervention, the under-identification of young children diminishes accessibility of early intervention services (Meisels & Wasik, 1990). According to the 18th Annual Report to Congress (US DOE, 1996), 12% of school-age children receive special education services. In contrast, only 4.4% of preschool children receive special education and only 1.4% of infants and toddlers receive early intervention services. These statistics indicate a significant need to improve identification for children who are likely to require special education at school age. This project is targeting those infants and toddlers who otherwise are unlikely to be identified early - which is estimated to be about 10.6% of the population based on 12% receiving services at school age minus 1.4% currently served in infancy.

Why Is Early Identification So Important?

Brain Research. This decade has brought increasing awareness to the "quiet crisis" facing families of children under 3 (Carnegie Task Force on Meeting the Needs of Young Children, 1994). Recent advances in brain research show how the environment sculpts the young child's brain, as neurons form connections and mature in response to stimulation. The environment has the greatest potential to influence the child's developing brain during a child's first two years. Early experiences can dramatically impact on brain structure because the brain operates on a "use it or lose it" principle (Ounce of Prevention Fund, 1996). If a child does not have adequate emotional, physical, cognitive, and language stimulation early in life, neurons can be lost permanently.

School Readiness. Language development is one of the most critical school readiness skills. A child's capacity to talk and the size of their vocabulary when they enter kindergarten is predictive of success in school. Children with language problems in preschool are very likely to have academic problems at school age, and are at increased risk to develop behavior problems. Early intervention may prevent or decrease the severity of language delays in preschoolers, enhance school readiness, and increase later academic success in school.

Cumulative Effects of the Environment. Learning to talk is the foundation for school readiness. A stimulating environment in infancy and early childhood is essential for language development. Research on children raised in poverty demonstrates the dramatic detrimental impact that impoverished environments can have on a young child's capacity to learn to talk. A strong relationship has been found between the amount that parents talk to their children, socioeconomic status, the child's vocabulary growth rate, and the child's IQ (Hart & Risley, 1992; Walker, Greenwood, Hart, & Carta, 1994). Unfortunately, many families cannot provide home environments that support language acquisition optimally. Furthermore, parents across socioeconomic levels talk less to children who are late in talking, and hence, the quality of their language learning environment may further impede brain development at a very critical age. Children's capacity for learning language, which is regulated by brain maturation, is solidified by age 3. Educational programs beginning at 3 or 4 years of age could not hope to overcome such vast differences in cumulative experience. The challenge that we face is how to offer intervention that begins very early in a child's life and that offers meaningful support to families. In spite of federal legislation for early intervention, we are not reaching most of the children and families who need help.

HOW CAN WE FIND CHILDREN WHO NEED SERVICES EARLIER?

A child's level of communication development may be the best indicator of the presence of a developmental delay. Delays or disorders in communication development are the most prevalent symptom in children with disabilities (Wetherby & Prizant, 1996). When serious health or physical impairments are not present, a delay in language development may be the first evident symptom that a child is not developing normally. A language delay may be the primary problem or reflect delays in other developmental domains (i.e., socioemotional, cognitive, motor, or sensory).

Most children develop their first words between 12 and 18 months, and it is common practice to wait until a child is at least 24 months and still not talking to refer the child for an evaluation. Some children who are not talking at 24 months will not have persistent language delays while others will. Consequently, more sensitive measures are needed. A broader array of communication and symbolic behaviors need to be considered to identify communication problems in infants and toddlers. Research over the past two decades has identified a collection of language precursors that predict later language development. Language precursors have been identified in the following areas (McCathren, Warren, & Yoder, 1996; Wetherby & Prizant, 1993; 1996):

1) emotion and use of eye gaze,
2) communication,
3) gestures,
4) sounds,
5) use of words,
6) understanding of words, and
7) use of objects.

Instead of waiting for children to start using words, measuring these language precursors is a promising solution to improve early identification.

Wetherby and Prizant (1998) have developed an evaluation tool, the Communication and Symbolic Behavior Scales- Developmental Profile (CSBS-DP), which measures these 7 areas in young children and is currently being nationally field-tested. Preliminary norms are available now and national norms will be available in the fall of 1999. This approach can identify communication delays in children as young as 6 to 12 months of age, when the brain is still relatively immature and more responsive to intervention.

Our Evaluation Model

Our approach to early identification is a new referral and evaluation system using the CSBS-DP (Wetherby & Prizant, 1998) to identify children 6 to 24 months of age at risk for developmental disabilities. Our system is a three-step process designed to maximize the role of the family and minimize the time required by healthcare or childcare providers, thus enhancing effectiveness and cost-efficiency.

Step One:

The first step is to screen communication using the Infant/Toddler Checklist for Communication and Language Development, a brief one-page parent report form. The Checklist is a quick way to decide if a communication evaluation is needed. When the Checklist is received and scored at FIRST WORDS, we send families a report indicating either that their child is performing as expected for his/her age or that more information is needed.

Step Two:

For children performing below what is expected for their age on the Checklist, a more in-depth Caregiver Questionnaire is mailed to families. The Caregiver Questionnaire is a 4-page form that allows more detailed information and room for parents to indicate specific gestures, sounds, words and play skills their child uses, as well as describe strengths and concerns about their child. When the Caregiver Questionnaire is received and scored at FIRST WORDS, we send families a more detailed report summarizing how their child is communicating, any areas of concern, and what to expect over the new few months based on the information reported by the caregiver.

Step Three:

For children performing below what is expected for their age on the Caregiver Questionnaire, we invite families to bring their child in for an evaluation. A clinician contacts the family by telephone to arrange this evaluation at a time that is convenient for the family and explains that the parent(s) will be in the room with their child during the entire evaluation. During the evaluation, the clinician gathers an interactive Behavior Sample of the child to measure the child's use of emotion and eye gaze, communication, gestures, sounds, use of words, understanding of words, and use of objects. The sample is structured using child-friendly techniques to encourage children to communicate at their best. The clinician gives the parents feedback about their child's strengths and any areas of concern both during the evaluation and in a written report.

For children performing below what is expected for their age on the behavior sample, we make referrals for further evaluation and/or to services available in the community. We offer services through our project to children who are not yet eligible for services through Part C of IDEA.

MENU OF SERVICES OFFERED TO FAMILIES BY FIRST WORDS PROJECT

FIRST WORDS Project has a menu of service options offered to families to support communication development in children who may need extra help to reach their potential:

Parent Education Workshops are offered in the community to provide information about communication with specific ideas about how to support children's development.

Infant-Toddler Play Groups are offered at FSU and in the community to give caregivers the opportunity to talk to a speech-language pathologist about their child's development in a relaxed, informal, child-friendly setting with time for discussion, coaching, and play.

Individualized, Family-Guided Intervention Programs are offered for families whose children have been evaluated by FIRST WORDS and both our staff and the family have specific concerns about the child's development. Individual sessions with families are offered at FSU or in the family's home. Sessions focus on how their child communicates, how to respond in ways to promote their child's communication development, how to address communication development in everyday activities in the home, and how to deal with special issues such as behavior problems related to limited communication or oral/motor issues.

Referral for Services in the Community are made for children who need more specialized evaluation or who may qualify for services that are offered in the community.

Monitoring Communication and Language Development with our evaluation tools is offered to families who are concerned about their child's development and want to find out how their child is progressing. For children under 24 months of age, we usually monitor development in 3-month intervals to detect growth. A child's growth rate is the best predictor of prognosis.

"Since we've begun the First Words Program, my child has become much more vocal, he currently has about 30 words that he uses regularly. He also uses several signs to communicate such as "help," "eat" and "more."

Parent 1998"

Visit our website for a current calendar of parent education workshops and infant-toddler play groups being offered in Leon County.
http://firstwords.fsu.edu

WHAT WE HAVE LEARNED FROM OUR FIRST YEAR

We have established a collaborative relationship with over 200 community healthcare and childcare providers and agencies in Leon County in 1998. As of December 1998, we have gathered about 600 Checklists and conducted follow-up evaluations on about 300 children. We began offering the menu of service options to families in July, 1998 and in 6 months have provided parent education classes at the Public Library, infant/toddler play groups, and individualized intervention to about 70 families. We are currently gathering data on child and family outcomes to document the effectiveness of our early intervention program.

What Parents Have Reported About Their Child's Communication on our Measures

We have gathered information from hundreds of children in the Tallahassee area thanks to the help of many local healthcare and childcare providers. Following is a summary of the preliminary developmental patterns found based on parent report with our Checklist and Caregiver Questionnaire. Skills reported by at least 80% of the parents are listed to characterize what to expect from young children.

Early communication is rooted in the expression of emotion and use of eye gaze. Sharing emotion and attention is a critical milestone in learning to talk. Most parents report their child:

- lets them know when happy versus upset before 8 months of age
- smiles while looking at them and looks at them to see if they are watching when playing with toys by 9 months

Children learn the power of communication before they learn to talk. Communicating to get others to do things and to draw others' attention to things are important milestones in learning to talk. Most parents report their child:

- lets them know that he/she needs help or wants an object out of reach by 9 months
- gets them to notice interesting objects by 12 months

Children use gestures before they use words. Most parents report their child:

- gives objects, shows objects and waves by 11 months
- points to objects and uses at least 6 conventional gestures by 12 months
- nods their head to indicate yes by 20 months

A child's ability to use sounds is the strongest predictor of language skills a year later. Most parents report their child:

- uses sounds to get attention or help by 8 to 9 months
- uses 1 or 2 consonants and sometimes strings consonant sounds together by 9 months
- uses at least 3 consonant sounds by 12 months, and at least 6 sounds by 20 months

Children usually understand more words than they can say. Most parents report their child:

- often looks or turns toward them when they call their child's name by 9 months
- understands (without gestures) at least 4 words by 12 months, 18 words by 16 months, and 30 words by 22 months, from a list of the 36 most common early words

Children usually use their first word around their first birthday and use dozens before their second birthday. As children's vocabulary grows, they begin to combine words and are on their way to constructing sentences. Most parents report their child:

- uses 1 to 3 words by his/her first birthday
- uses 1 word by 12 months, 5 words by 14 months, 10 words by 18 months, and 21 words by 22 months, from a list of the 36 most common early words
- puts two words together by 22 months

Knowing how to use objects helps children learn the names of objects. Many of the most common first words are names for objects that the child uses. Most parents report their child:

- uses 1 object by 9 months, 3 objects by 12 months, 7 objects by 16 months, and 9 objects by 22 months, from a list of 10 common objects
- stacks 2 blocks by 16 months, and 3 or 4 blocks by 22 months
- pretends with toys by 18 months

Validation of our Measures

We have completed the initial validation studies to demonstrate the accuracy of the referral and evaluation measures on subgroups of children we are following. The results indicate highly significant correlations ($p < .0001$) between our referral Checklist and the follow-up Caregiver Questionnaire ($r = 0.93$ for 264 children), the Checklist and the follow-up Behavior Sample ($r = 0.70$ for 102 children), and between the Caregiver Questionnaire and Behavior Sample ($r = 0.75$ for 102 children). The validation groups include a culturally diverse population with over one-fourth African American, the largest minority residing in Leon County.

We have gathered a measure of vocabulary production on 44 children at 2 years of age. We began testing about half of these children at an average age of 21 months and the other half at 13 months. We found high, significant correlations with all three of our measures (the Checklist, Caregiver Questionnaire and Behavior Sample) and the size of a child's vocabulary at age 2 years ($r = 0.62$ to 0.86) for both groups of children.

These validation studies demonstrate that our evaluation tools are effective at measuring early communication skills and predicting a child's relative performance on language measures a year later. We are currently conducting further longitudinal validation studies.

WHICH CHILDREN SHOULD WE BE CONCERNED ABOUT?

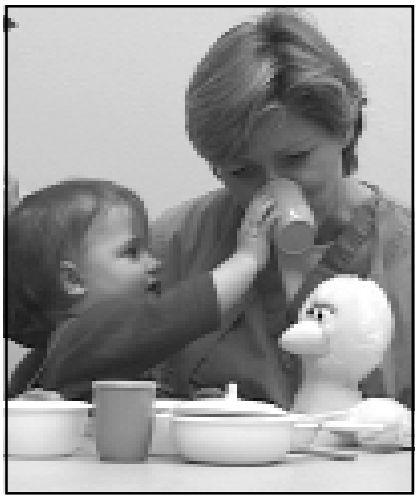
Although some children who are late in learning to talk catch up on their own, at least half have persisting language problems. Research on late talkers indicates that children who are delayed in using words but who show good use of emotion and eye gaze, communication, gestures, sounds, understanding of words, and use of objects, are likely to catch up without intervention. These children are referred to as late bloomers. On our evaluation tools, if a child is delayed on the use of words only, but is not delayed in any of the other areas, we recommend monitoring that child's development but intervention is not warranted.

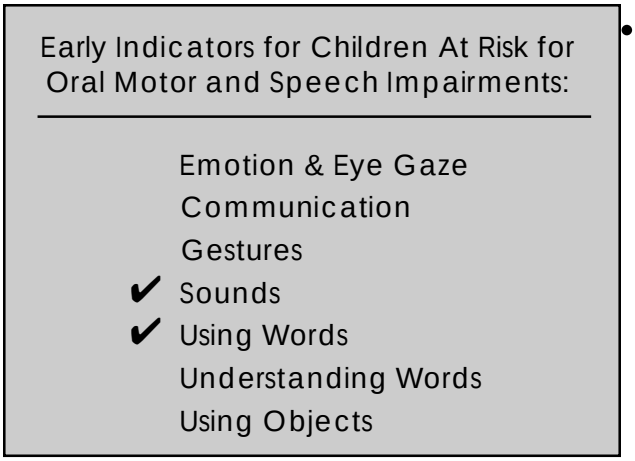
Children who show other delays in addition to delays in using words are the ones who we are more concerned about. We have found three major patterns that indicate concern.

Early Indicators for Children At Risk for Developmental Disabilities:

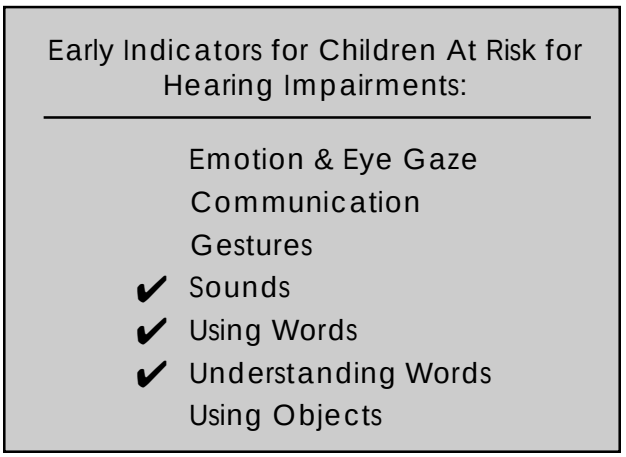
- ✔ Emotion & Eye Gaze
- ✔ Communication
- ✔ Gestures
- ✔ Sounds
- ✔ Using Words
- ✔ Understanding Words
- ✔ Using Objects

The first pattern represents children who show delays for their age in many or most of these areas. In addition to delays in using words, they also show delays in at least 2 of the following areas: emotion and eye gaze, communication, gestures, sounds, understanding of words, and use of objects. Children in this first group may have delays in motor, cognitive, socioemotional, and/or language development or a more general developmental delay across these domains. Most of these children are unlikely to catch up on their own and their families are offered a menu of service options and/or referred to community agencies. These children are at risk for language and learning disorders, behavior disorders, mental retardation, or autism spectrum disorders. This pattern also may represent children who lack environmental stimulation that can lead to developmental delays. Children displaying this pattern are very likely to have persistent problems and require special education later in school.





The second pattern represents children who show delays in using words and sounds, but who communicate well with gestures, have good understanding of words, and play well with objects. Children in this group may have speech disorders. They need to be carefully evaluated. For these children, we need to monitor their development and, depending on severity, offer services if the child is not progressing without intervention or if the family is concerned. Usually these children do not have academic problems when they reach school age if they develop intelligible speech.



The third pattern represents children who show delays in using words and sounds and understanding words, but who communicate well with gestures and play well with objects. Children in this third group may have a hearing impairment and need to be carefully evaluated. We refer these children for a hearing evaluation, monitor their development, and offer or coordinate services if needed. Although hearing impairments can be recognized in very young children, the average age they are identified is between 12 and 25 months (Parving, 1993; Harrison & Roush, 1996). It is so important to provide amplification, if needed, as early as possible. To promote speech and language development, it is most effective to provide amplification by 6 months of age. Children with hearing impairments also may show other developmental delays typical of the first two patterns. For any child who is delayed in the use of and response to sounds and words, it is essential to have their hearing screened.

Children in all three groups are at risk for developing behavior problems because they may not be able to communicate effectively. We offer all families education programs and information on preventing and managing behavior problems in young children. Our goal is to help families and caregivers expand their child's ways of communicating before serious behavior problems develop.

HOW CAN HEALTHCARE AND CHILDCARE PROVIDERS HELP?

We need your help in detecting communication problems earlier in young children. You can help by giving the Checklist to parents of young children. We are eager for you to give the Checklist to parents of any young child in Leon or surrounding counties, even if there are no concerns. With our grant funding, we are interested in gathering information about communication development from as many families as possible in this region. We are interested in both young healthy children and children whose families or service providers have concerns.

What If Families Have Concerns? Families are often the first to raise concerns about their child's development. Concerns raised by the majority of families are warranted, and therefore, it is important to give the Checklist to any family that has any concern about their child's communication development. Some families have concerns about their child, but their child is developing typically. It is important to reassure those families and answer questions that they may have about their child's development. For these families, we can monitor their child's development with our Caregiver Questionnaire to make sure their child is progressing as expected and provide information about typical development.

What If Families Are Not Yet Concerned? Some children are delayed but families are not yet concerned. It can be difficult for parents to learn that their child is not developing as expected. It is important not to alarm families and to offer support as concerns are raised. It can be confusing to families if one professional tells them that their child is doing fine and another indicates concern. You can help by becoming familiar with early indicators of communication problems. We will try to obtain a release of information from families who you refer and/or serve so that we can send you a copy of our written reports. In this way you can know which children you refer need monitoring and/or intervention. If we can provide intervention early, the child's chances for improvement are much greater.

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For comments, questions, or information, call us at (850) 644-8462

Look for our Website: http://firstwords.fsu.edu

Painting by Diane Moore - Acrylic on canvas

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