



## THE BUILDING BLOCKS OF LANGUAGE IN EARLY CHILDHOOD, PART 4: PRELINGUISTIC MILIEU TEACHING: A BOOSTER FOR CHILDREN AGE 2

by Joy Simpson

Prelinguistic Milieu Teaching (PMT) is an early intervention method that has been studied for 10 years. It involves one-on-one services for the child and a program of parent education. Its purpose is not to make the child talk, but to build the first stage of communication. This will lead to developmental milestones, including language. PMT builds the child's motivation and awareness of a communication partner. "To be able to tell someone - even in gestures - that you are hungry is empowering," says Nancy Brady, associate research professor with the Life Span Institute at the University of Kansas [and BNCD investigator]. "In our clinical experience, we've found that young children are much less

frustrated when they learn to communicate." Brady is fine-tuning the effectiveness of PMT in a 5-year research project with Steven Warren, director of the Life Span Institute, and Marc Fey, professor in the Communication Disorders Program at the University of Kansas Medical Center.

The PMT philosophy holds that children show progress if given specific kinds of supports in an environment that brings out their interests and abilities. The goals are to help a child make frequent, clear requests and comments with gestures and/or sounds, and to look at the person they are communicating with.

PMT can fill the gap between infancy and

*(Communication, Continued on page 2)*



## PROFESSOR'S \$1.75M GRANT AIMS TO IMPROVE TREATMENT OF VOCABULARY DEFICITS IN KIDS

by Karen Henry, Life Span Institute

Holly Storkel, assistant professor of Speech-Language-Hearing at the University of Kansas [and BNCD investigator], has won a highly competitive five-year, \$1.75 million grant to develop one of the first comprehensive models of how children learn words that will ultimately be used to improve the diagnosis and treatment of language deficits.

The National Institutes of Health grant will allow Storkel to do the kind of basic research that is needed to advance clinical

practices in speech-language pathology.

"A lot of what we believe about how to teach kids vocabulary hasn't been systematically tested or tied to theories of how they actually learn words," she said.

Many children with language impairments have difficulty learning new words, yet the cause is poorly understood, Storkel said.

"Children who enter elementary school with vocabulary deficits have difficulty closing the gap with their peers, so early effective word-learning instruction is critical I

*(Grant, Continued on page 3)*

### In This Issue:

#### Building Blocks:

Prelinguistic Milieu Teaching .....	1
-------------------------------------	---

#### BNCD Investigator's

Grant .....	1
-------------	---

#### Tips for Listening

to Children.....	2
------------------	---

#### Upcoming Events .....

About this Newsletter.....	4
----------------------------	---

#### Science Activities for

Parents and Children .....	4
----------------------------	---

## PRELINGUISTIC MILIEU TEACHING...

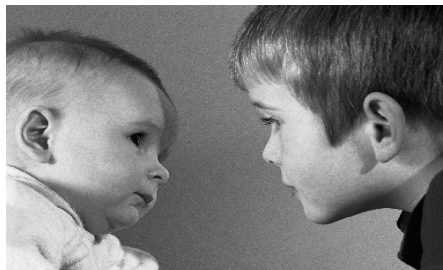
(Communication, Continued from page 1)

age 3 when more intensive early intervention often begins. "Doctors and educators are reluctant to offer a child augmentative devices when they see delays at age 2. They often tell parents to wait and see if their child will develop spoken language on his own," says Brady. Sign language and picture pointing are two kinds of augmentative communication. With PMT, a therapist can work with children as young as 18 months and establish the first stage of communication that is prelinguistic. "If a child hasn't learned what communication is, he will have a hard time knowing how to carry on a conversation with sign language or other techniques," says Brady. She has seen children with autism repeatedly point at a picture card, unaware they must show it to someone if they hope to make their request known.

Here are three basic principles of PMT. First, follow the child's lead. Children focus best on things that interest them. The PMT therapist spends time observing the child when they are together and waits to begin a session until he sees what the child is looking at or playing with. Face to face, at eye level with the child, he talks about it. Second, set the stage for communication. By putting a favorite toy in the room, but out of reach, the PMT therapist encourages the child to come ask for it. When a therapist puts things out of order in the room, this may elicit a comment from the child. Finally, use social games like Pat-a-Cake strategically. Children learn how the game ritual goes and when the adult interrupts or changes it, the child will communicate to be able to keep playing. Pat-a-Cake and Peek-a-Boo also reinforce

face-to-face contact with give and take, like a conversation.

PMT has proven helpful in building the child's capacity to initiate communication with clear, frequent acts. "The technique is most effective when parents notice the changes in their child and reinforce this growth and development at home," says Warren. Several re-



searchers are validating its effectiveness with specific clinical populations. Paul Yoder has a project like KU's underway at Vanderbilt University. He is working specifically with children with autism, whereas Warren, Brady and Fey have focused their study on children with Down's syndrome and other disabilities resulting in language delays.

Progress between the ages of birth to 3 years may affect how well a person uses the tools of communication throughout his whole life. This can include vocabulary, reading comprehension, and fluent self-expression. For a child with developmental delays, early intervention is considered best practice. "The earlier the better," says Steven Warren. Research shows that parents may be able to stave off behavioral problems and school failure, if they can build support for their child's prelinguistic development in the early stages of life.

*This is the final segment in a four-part series with Steven Warren and Nancy Brady, scientists at the BNCD. You can read the original article at <http://merrill.ku.edu/IntheKnow/sciencearticles/PMIntervention.part4.html>.*



**Effective listening helps adults communicate with children.**

**Here are some tips!**

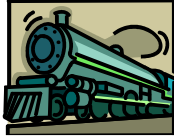
1. Show interest in everything the child has to say, using your judgement later on to draw out the information you actually need for future planning.
2. Give children time and try not to interrupt or finish sentences.
3. Don't attempt to fill every silence.
4. When the child has finished talking, sum up what he has said and reflect it back to him, for example, 'It sounds like you felt very angry when Tommy took your ball away'.
5. Don't feel that you have to have an answer or a solution for everything.
6. Acknowledge the feelings that are being expressed and give them validity.
7. Avoid closed questions that leave you open to a yes/no answer (e.g. 'Are there things you like at nursery?'); use open-ended questions instead (e.g. 'What are some of the things you like about nursery?').
8. Make eye contact and get down to the child's level (some children with autism find eye contact very difficult).
9. Remember that 'why?' questions can sound like an accusation.
10. Talk respectfully to children; they know when they are being patronized.
11. Be honest if you don't know something.
12. If you make a mistake, apologize.

This list was taken from *Listening as a way of life* ( for the full text, visit [http://www.nccf.org/core\\_files/listening-disabled.pdf](http://www.nccf.org/core_files/listening-disabled.pdf))  
For more information, visit [www.nccf.org.uk](http://www.nccf.org.uk).

## Upcoming Events for Parents and Kids!

### Train Rides:

11 a.m. and 2 p.m.  
Saturdays and 2 p.m.  
Sundays in June,  
July, and August at  
the Belton, Grandview & Kansas City Rail-  
road Co. Train departs at 502 S. Walnut  
in Belton. Round-trip lasts about 45 min-  
utes. Fares are \$7.50; free for children  
younger than 3. Also, Ice Cream Social  
Train, at 7 p.m. on Fridays. Fares are  
\$8.50 and include ice cream served on  
the train.



Call: (813) 331-0630.

### Waldo Fall Festival:

10 a.m. - 5 pm. on Sept. 16, at Waldo  
area, 75th and Wornall, Kansas City, MO.  
Children's activities, including, a climbing  
wall, moon walk, giant slide and more. Be  
entertained with puppets, clowns, and  
musical groups. Admission is free!

Call: (816) 523-5553 or

See: [www.waldokc.org](http://www.waldokc.org)

### Fireworks in Cartoon:

Sept. 30 at 7:30, From Bugs Bunny  
and Daffy Duck to Porky Pig and  
Elmer Fudd, Cartoon will highlight the  
lively music from the classic Looney  
Tunes and Merrie Melodies cartoons.  
Ticket prices range from \$11.50 -  
\$28.

Call: (785) 864-2782 or

See: [www.lied.ku.edu](http://www.lied.ku.edu)

### Pumpkin Patch:

From October 1st through October  
31st, Schaake's Pumpkin Patch is will  
be offering hayrack rides through 15  
acres of pumpkins. Pick out your fa-  
vorite one and take it  
home! Schaake's  
Pumpkin Patch is open  
9 a.m. to 6 p.m. and  
located at 1791 N  
1500 Rd., Lawrence,  
KS and admission is free!



Call: (785) 843-2459

### Gross Science:

On October 21st,  
get into the Gross!  
This is a hands on  
class that will have  
you making fake snot,  
blisters, and scars to take home and  
impress friends and just in time for  
Halloween! Classes at 11 a.m. & 2 p.m.  
Located near Crown Center at Union  
Station, 30 W Pershing Rd., KCMO.



Call: (816) 460-2020 or

See: [www.unionstation.org](http://www.unionstation.org)

### Cats & Bats:

The Lawrence Arts Center is putting  
on two plays in one bringing Halloween  
to life as Lucy the cat tries to put up  
with the antics of her new pet, Belfry  
the bat. Great fun for the very young  
(3 & up) and the whole family! Hap-  
pening October 28th & 29th at 2 p.m.

Call: (785) 843-2787 or

See: [www.lawrenceartscenter.org](http://www.lawrenceartscenter.org)

(Grant, Continued from page 1)

preventing reading and academic failure.”

Storkel will conduct a series of studies  
of children with and without impairments  
and adults to build a framework for prac-  
titioners based on what she discovers  
about how individual sounds, words and  
word meanings contribute to learning  
spoken language.

Storkel describes the relationship of  
words to each other as sound, word and  
meaning neighbors. She will be exploring  
how these neighborhoods affect learning  
to determine whether words are learned  
more easily if they have many or few  
neighbors of each type.

“Children learn which sound combina-  
tions are more or less common in their  
language by the time they are about nine  
months of age,” Storkel said. “We want to

know if more common or rarer sound  
sequences help you learn new words.”

Storkel said that an earlier adult study  
showed that if a word has a unique  
sound pattern, it triggers word learning,  
immediately leading to more rapid  
learning. However, with whole words  
and meaning, it is better to have many  
neighbors because the neighbors help  
reinforce what has been learned.

In addition, Storkel is interested in  
whether all neighbors are equally influ-  
ential on learning. For example, in  
word meaning it is hotly debated  
whether physical or functional similarity  
is more important, according to Stor-  
kel. Do kids learn the meaning of words  
like dog and cat more easily because  
they are both furry animals with four  
legs, or do they learn words like chair,

sofa and stool because you can sit on all  
of them?

The project could fundamentally  
change the way children are assessed and  
treated for vocabulary impairments.

“Current assessments tell you that a  
child doesn't know enough words but  
not why. If an assessment were based on  
knowledge of what factors influence  
word learning, you would have a better  
idea of why the child had trouble learn-  
ing words, giving you a clear direction  
for treatment.”

This article was originally published May 3,  
2006 by University Public Relations. You  
can read the original article at:

<http://www.news.ku.edu/2006/may/3/storkel.shtml>. Karen Henry can be reached at  
[kahenry@ku.edu](mailto:kahenry@ku.edu) or (785) 864-0756.

## BNCD

3031 Dole Human Development Center  
1000 Sunnyside Ave  
University of Kansas  
Lawrence, KS 66045-7555  
Phone: 785-864-4570  
Fax: 785-864-4571  
E-mail: [bncd@ku.edu](mailto:bncd@ku.edu)  
<http://www.bncd.ku.edu>

Nonprofit Org.  
U.S. Postage  
**PAID**  
Lawrence, KS  
Permit No. 65

### Return Service Requested

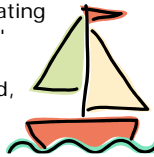
#### About this Newsletter:

The BNCD newsletter is designed to keep you informed about the ongoing research projects that are being conducted by BNCD researchers at the University of Kansas. Participants who have been part of recent research projects done by BNCD researchers, parents who have expressed interest in participating in future research, and individuals from organizations such as schools and day-care centers that have an interest in BNCD studies will receive this newsletter from time to time to keep them up-to-date about the research activities at the BNCD. If you do not wish to receive future newsletters, please call or e-mail the BNCD to have your name removed from our list. Research at the BNCD is supported in part by grant number 5 P30 DC05803 from the National Institutes of Health (NIH) at the University of Kansas.

### Science Activities: For Parents and Children

#### Making Bathtub Boats!

- Talk with your child about floating and what items are "floaters." Collect some of these items, including small pieces of wood, and invite your child to experiment with making boats in the bathtub.
- Extensions to this activity are limitless. Provide glue and invite your child to construct some small boats using the same materials. Try them out in the tub once the glue is dry. Or, try making boats using only aluminum foil. What shapes of foil work best?
- Try testing the boats by adding pennies on top of them one at a time. How many pennies can they hold before they sink?



#### Sound Hunt

- Go on a sound hunt with your child. When you hear a sound, but cannot see the source, try to guess what's making the sound. Then track the sound down. Were you right?

#### Guessing What Floats

- Choose a variety of familiar objects from inside and outside the house (cotton swabs, small rocks, a penny, a pencil, a plastic cup, an orange, a potato, a spoon, a leaf...) and place them in the bathtub one by one.
- Talk with your child about what you both observe using the words "sink" and "float." Separate the objects into a "sink" pile and a "float" pile and make some guesses with your child about why you each think some things float and some things sink. Collect some other objects and see if you can predict what they will do in water.

#### Dropping Objects

- Gather a variety of items of different shapes, weights, and materials, like a feather, a piece of paper, a small rock, an eraser, a ball, or anything else that isn't too heavy or won't be damaged by being dropped. Have your child feel and hold each item. Then drop the items one at a time. How does each item move on the way down?