

Baby Talk/Kid Talk: PWU AAC Talk to Little Ones!

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What does the research tell us?

- DECTalk is 60%-80% intelligible to typical adult native English speakers in single-word contexts (McNaughton, Fallon, Neisworth, Tod, & Weiner, 1994; Greene & Pisoni, 1988; Mirenda & Beukelman, 1987).
 - It is between 73% and 97% intelligible in contextually rich sentences (Drager & Reichle, 2001; Mirenda & Beukelman, 1987).
 - The intelligibility of synthesized speech can be influenced by many factors including rate, linguistic context, listener's exposure and/or practice, listener's age, and background noise (Axmear, 2005).
 - McNaughton et al. (1994) found that the performance of children ages 6-10 years old improved from 69% to 86% given repeated listening to single words across five sessions.
 - Drager et al. (2006) noted that in children ages 3 to 5, intelligibility levels of sentences are higher than those of single words.
- (Note: See attached lit review plus resources at end of handout)

'Quick Talk'

- 'Quick talk' pages were set up for interacting with babies and young children
- Pages were a joint venture of:
 - Krista, thinking of things she wanted to say to Michael quickly, and using digitized speech
 - Krista's friends, including several SLPs
 - Other new moms who use natural speech and shared things they said frequently to their babies

Babyhood

- Digitized messages were recorded using motherese
- Digitized messages were used in combination with synthetic speech during daily routines
- Initially, messages were programmed on larger keys for ease of access
- Many messages were chosen that would be appropriate a variety of times during the routine

Babyhood 'Quick Talk' Pages Examples

- | | |
|--|--|
| <ul style="list-style-type: none"> • Diapering <ul style="list-style-type: none"> – Do you need a diaper change? – Yuck! Stinky! – That's one stinky poo! – Don't you pee on me! – Look at that cute little tushie! – We're almost done • Feeding <ul style="list-style-type: none"> – Who's a hungry baby? – Is it yummy in your tummy? – Mmmm yum! – What a mess! – Do you want more? – All done! • Chants and Rhymes <ul style="list-style-type: none"> – This little piggy – Where's baby? – Peek-a-boo! I see you! | <ul style="list-style-type: none"> • Calming <ul style="list-style-type: none"> – Relax baby – What's the matter? – It's ok Michael – Do you want your teddy? – Do you want your paci? – Mama's here • Bath time <ul style="list-style-type: none"> – Arms up! – Let's get your duckie for bath time! – Time to get clean – Let's wash your hair Michael – You got me! You splashed Mom |
|--|--|

Emergency Page

- | | |
|---|---|
| <ul style="list-style-type: none"> • Used for information that needs to be communicated very quickly, efficiently, and effectively • Digitized speech was used to increase intelligibility for unfamiliar listeners | <ul style="list-style-type: none"> • Name, address phone, number • I have a baby. • He was born on May 23, 2011. • I am using a communication device to help me talk. • I am alone. • I need help immediately. • Please send an ambulance. • Please send a firetruck. • My baby has fallen. • My baby fell in the pool. • Please ask me questions and I will answer. |
|---|---|

**Babyhood to Early Toddlerhood:
New additions as Michael grows!**

- Trouble
 - Watch your fingers!
 - Watch your head!
 - Did you bump your head?
 - Uh oh!
 - No hitting
 - Be nice
- Story time
 - Let's read a story
 - Turn the page
 - The end
- Babbling
 - Many different sounds including *p, b, and m*

Generative Language

- Krista is an accomplished AAC user and frequently uses generative language, plus word prediction, to communicate with baby Michael and other young people
- Conversations include core language such as:
 - What do you want/need?
 - Come here.
 - Look at that!
 - What's that? It is a ____.
 - Who is that? Is that Grandma? Grandpa?



Krista & Michael

Krista's Top 10 Tips

- 1) Look at them - reinforce communication attempts with eye contact
- 2) Get down their level
- 3) Use facial expressions and gestures – and imitate your baby's facial expressions;
 - Have the baby imitate actions (such as peekaboo, waving bye bye, pat-a-cake)
 - Teach turn taking skills that will later be applied to conversations
- 4) Explain to the kids that this is how I talk

Krista's Top 10 Tips (cont'd)

- 5) Reward them!
- 6) Repeat
- 7) Be **Loud** – it is good to be loud so they listen
- 8) Use good language skills
 - name things
 - expand on the children's language

Ex: Child says "dog," expand by saying "You're right! That is a little, brown dog."

Krista's Top 10 Tips (cont'd)

- 9) Talk to them on device alot to they know and understand it
 - Talk while you're doing things!
 - Mommy is getting lunch ready.
 - Let's have macaroni and cheese today.
 - Yum! This is good!
 - Talk about what you're going to do
 - We're going to Grandma's house.
 - Grandma has a swimming pool.
 - Michael will go swimming.
- 10) Smile and have fun!

Next steps?

- Parent's group for PWUAAC
 - Share tips and tricks
 - Keep in touch after ISAAC!

- Questions?
- Thank you!

Baby Talk / Kid Talk: PWUAAC Talk to Little Ones!

Krista Howard, Kaitlyn Graham, & Caroline Ramsey Musselwhite

All children need to hear their Mom's voices. It is crucial to make a closer bond. For people who use AAC (PWUAAC), this is very important. Talking to your little one needs to be quick and easy – especially if you are mostly using one hand! This will help the baby AND the Mom not to be frustrated. This paper will share ideas for new Moms (and Dads!) to use their AAC devices to talk to their babies. We will review research on digitized and synthetic speech. It is also important for ALL people who use AAC to be able to talk to young children, as we all have friends and nieces and nephews. This paper will also present ideas for communicating with children under five. Come learn new tricks, see great videos, and join a Mom's group of PWUAAC!

INTRODUCTION

All children need to hear their Mom's voices. It is crucial to make a closer bond. For people who use AAC (PWUAAC), this is very important. Talking to your little one needs to be quick and easy – especially if you are mostly using one hand! This will help the baby AND the Mom not to be frustrated. This paper shares ideas for new Moms (and Dads!) to use their AAC devices to talk to their babies. It includes research on digitized and synthetic speech. It is also important for ALL people who use AAC to be able to talk to young children, as we all have friends and nieces and nephews.

RESEARCH

Speech Generating Devices (SGDs) provide speech output via digitized speech, synthesized speech, or a combination of the two. Digitized speech refers to natural speech that is recorded with a microphone. Synthesized speech is a technology that translates a user's input into speech using algorithms. Synthesized speech has many benefits for persons who use SGDs, but they may be less intelligible than natural speech (Axmear, 2005). The intelligibility of Krista's SGD is crucial given that she is the primary caregiver of Michael and wants to promote the development of his speech and language. Therefore, Krista worked with colleagues to reference the research regarding speech output intelligibility.

DEctalk® is a low cost speech synthesis software and is the speech synthesizer that K uses. DEctalk is 60%-80% intelligible to typical adult native English speakers in single-word contexts (McNaughton, Fallon, Neisworth, Tod, & Weiner, 1994; Greene & Pisoni, 1988; Miranda & Beukelman, 1987). It is between 73% and 97% intelligible in contextually rich sentences (Drager & Reichle, 2001; Miranda & Beukelman, 1987). The intelligibility of synthesized speech can be influenced by many factors including rate, linguistic context, listener's exposure and/or practice, listener's age, and background noise (Axmear, 2005).

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Krista decided to use a combination of digitized and synthesized speech. Digitized speech messages included phrases, sentences, and chants and rhymes. Digitized messages were used in combination with synthetic speech during daily routines such as diapering, feeding, cuddling, and getting dressed. These messages were programmed on a larger key size for ease of access. Many messages were selected because they would always be appropriate during the routine. There are never enough hands when dressing a little one, let alone an extra hand to precisely use a SGD!

There is evidence that suggests synthesized speech intelligibility improves with practice. McNaughton et al. (1994) found that the performance of children ages 6-10 years old improved from 69% to 86% given repeated listening to single words across five sessions. It's obvious that Michael will have ample opportunities for exposure. Drager et al. (2006) noted that in children ages 3 to 5, intelligibility levels of sentences are higher than those of single words. Contextual cues can aid in improving intelligibility. Strategies such as giving topic cues, repeating important information, and using phrases and sentences when appropriate can be helpful (Drager, Reichle, & Pinkoski, 2010). Krista found that these strategies, among others, were useful to help facilitate Michael's understanding of her synthesized speech.

IMPLEMENTATION

This paper will share ideas for new Moms (and Dads!) to use their AAC devices to talk to their babies. It is also important for ALL people who use AAC to be able to talk to young children, as we all have friends and nieces and nephews. This paper will also present ideas for communicating with children under five.

Quick Talk Pages. We set up 'quick talk' pages for interacting with babies and young children. These pages were a joint venture of:

- Krista, thinking of things she wanted to say to Micheal quickly, and using digitized speech
- Krista's friends, including several speech-language therapists
- Other new moms who use natural speech, sharing things they said frequently to their babies.

For example, pages for babyhood to early toddlerhood included the following types of messages, reflecting language that is 'motherese' in style.

- **Diapering:** Do you need a diaper change? That's one stinky poo!, Look at that cute little tushie!, Don't you pee on me!, Yuck! Stinky!, We're almost done!
- **Feeding:** Who's a hungry baby? Is it yummy in your tummy?, All done!, Mmmmm yum!, What a mess!, Do you want more?
- **Cuddling:** Mama loves you, Give mama a hug, You're the best baby!, You're my

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favorite boy.

- **Calming:** Relax baby, What's the matter?, It's ok Michael, Do you want your teddy?, Do you want your paci?, Mama's here.
- **Trouble:** Watch your fingers!, Watch your head!, Uh oh!, No hitting, Be nice,. Did you bump your head?, I'm going to count to 3!
- **Chants and Rhymes:** This little piggy, Peekaboo! I see you!, Where's baby?
- **Bedtime:** One more story and then it's time to go to sleep, A bushel and a peck and a hug around your neck! Time to take a nap, Night night sweetie pie. I love you. Give mama a hug.
- **Getting Dressed:** What do you want to wear today? Sit still sweetie! Wow you're getting too big for this! You look so cute Michael!
- **Saying Goodbye:** Be a good boy! Love you sooo much! Mama always comes back. I love you!

As Michael got older, Krista recognized the need for additional pages such as:

- **Emergency Page:** I am alone. I need help immediately. My baby has fallen.
- **Social Routines:** Samples include patty-cake and ride-a-horse.

Generative Language. Since Krista is an accomplished AAC user, she also uses generative language on her AAC device, plus word prediction, to communicate with Baby Michael, and with other young people in her life. This conversation includes core language, such as:

- What do you want / need?
- Look at that!
- What's that? Is it a _____?
- Who is that? Is that Grandma? Grandpa, etc.

NEXT STEPS

What is next? How about a Mom's group for People Who Use AAC? It would be a great opportunity to share tips and tricks, and stay in touch after ISAAC!

SUMMARY

It is important for ALL people who use AAC to be able to talk to EVERYONE, including babies and young children. This session presents strategies for successful communicating with little ones, using AAC devices.

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Learning Objectives:

- 1) Summarize the research regarding using AAC devices to communicate with very young children.
- 2) Review strategies for supporting adults who use AAC in having quick and easy conversations with babies and young children.
- 3) Share ideas for scaffolding AAC communication with young children, and join a group of mothers who use AAC.