The Power of Language: Nourishing Development of the Whole Child

DAVID K. DICKINSON
DAVID.DICKINSON@VANDERBILT.EDU

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What does the future Hold?

Theory of mind
Attachment
Executive function
Social/academic relationships
Environmental factors
Biological factors

Literacy
Language

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Early Childhood Investigations Webinar
Attachment

- Biologically-supported emotional bonding
- Formed in the first two years
- Provides a secure base for exploration
- Protects against later internalizing and externalizing behaviors
- Associated with positive social relationships
- Stable over time (20+ years)

Self-Regulation/Executive Function (EF)

- Behavior regulation: avoiding impulsive emotion-driven actions
  - Example: Marsh mellow task
  - Wrapped present task
- Cognitive regulation: maintaining a focus, tuning out distractions, holding verbal directions in mind
  - Example: Head-toes-knees-shoulders
  - Peg tapping

Effects of Executive Function/ Self-Regulation

Academic Outcomes
Data from 34,000 kindergarten children: Stronger EF at school entry helped predict reading and math in fifth grade.

Matthew Effect:
Those with stronger EF benefit more from school instruction.
Attachment, Executive Functioning, and Language

- Watch Tanya noting varied ways she supports Eliza’s language and EF and how Eliza’s abilities make this possible.

- Eliza was 18 months old and being raised to be bilingual. She used between 20 – 30 words.

- What emerging emotional, social and cognitive abilities is Tanya supporting?

- Video #1

How Do Parents Nourish These Abilities?

- Sensitivity: gentle, warm interactions and sensitive to children’s interests and needs:
  - Interactions are accompanied by language

- Autonomy support: Give children opportunities to select and control activities and avoid being intrusive:
  - Guidance is conveyed verbally
  - Children with strong language skills are more adept at self control
  - Better EF supports language learning

- Mind-mindedness: Adults are aware of how children are feeling and what is of interest to them
  - Verbally communicated
  - Provides labels for mental states and emotions

- Sustained conversations: Lots of sustained conversations with varied vocabulary about diverse topics of interest to the child.

The Simple View of Reading

- Language is the strongest predictor of reading comprehension.
- Vocabulary is very important (Cain et al., 2016; Vellutino et al., 2006).
- Language helps with initial reading (Dickinson et al., in press).
- Language is the strongest predictor of reading comprehension.
Book Reading
- The activity most consistently associated with stronger language.
- Why?
  - Sophisticated vocabulary and syntax
  - Knowledge of the world
  - Fosters attachment and self-regulation
  - Is a preparation for conversations about books encountered in school
- Frequency of reading varies by income, education, ethnicity and race.

From Babbling to Talking to Academic Success
- Quantity of language input predicts speed of verbal processing at 18 mos. and language at age 8.
- Younger children have smaller vocabularies due to different language experiences.
- Vocabulary in kindergarten predicts later vocabulary.
- Oral language is the best predictor of reading comprehension by 4th grade.
- Achieving basic reading comprehension skill by grade 4 greatly reduces the chances of dropping out.
- A student who drops out costs society $260,000 in lost earnings, taxes, and productivity.

What Can Programs Do?
- Provide parents guidance about responsive parenting.
- Build relationships with programs that deliver services:
  - Book distribution
  - Parent coaching
Book Distribution Programs

- Dolly Parton's Imagination Library
  - Sign up at birth and receive one book per month until school entry
  - In all 50 states in communities that partner with Imagination Library
  - https://imaginationlibrary.com/

- Reach Out and Read
  - Clinics and pediatrician's offices
  - Receive a book and encouragement to read
  - http://www.reachoutandread.org/

Parent Coaching Programs

- Play & Learning Strategies
  - Small group (Austin) or 1-1 coaching sessions
  - https://www.childrenslearninginstitute.org/programs/play-learning-strategies/

- Pediatrician office delivered:
  - NYC and Pittsburgh: Video Interaction Project
    - https://www.videointeractionproject.org/
  - Chicago area: 30 million word project
    - https://tmwcenter.uchicago.edu/

Mealtine Conversations Can Contribute to Language Development [Weizman & Snow, 2001]

- Measures of talk during book reading, toy play and meal times in kindergarten were used to predict Kindergarten and grade four vocabulary (PPVT).

- The number and variety of sophisticated words used in each activity were correlated with later PPVT.

- Meal time was the strongest predictor.
Reviews the research I have been reporting. Profiles programs that support parents in ways that foster language growth.


Support Language Throughout Your Classroom Day

Teach Language ALL DAY

Informal conversations:
arrival and dismissal
centers time
mealtimes

Planned instruction:
book reading
content instruction
music
games
Factors that Support Vocabulary Learning

Teacher-based instructional factors
- Repeated exposure
- Varied words are used that are new to the child.
- Conceptual understanding is supported: story plot, content instruction, physical objects.
- Explicit word meanings are provided.
- Gestures are paired with the words.

Child-based learning factors
- The child is motivated and engaged. Play helps accomplish this.
- The child uses the words.
- Teachers respond to questions and comments about word meanings.
- Children and teachers construct extended conversations (drive for five).

Mealtime Conversations in Classrooms Can Contribute to Language Development (Barnes, Colemann & Blustein under review)

- 7 – 14% of the time in preschool classrooms
- Opportunities for extended conversations and talk about past and future events.

Study:
- 44 Head Start classroom mealtimes transcribed
- Fall-spring improvement in receptive language
- What works?
  - Mixture of topics combined with use of varied sophisticated vocabulary
  - Some attention to behavior and conversational rules

Mealtime Talk in a Head Start

Social-Personal Focus
- Child: Everybody was sick.
- Teacher: Who was sick?
- Child: My granny and my poppo momma.
- Teacher: What’s wrong with granpy?
- Child: She had to get a shot.
- Teacher: Did she get a shot?
- Child: Yes.

Food/Academic Focus
- Teacher: Do we have a vegetable today?
- Child: Yeah.
- Teacher: What kinda vegetable do we have on our plates?
- Child: Broccoli!
- Teacher: Broccoli and potatoes. Well potatoes are sort of something that you call a starch.
Use Music and Games to Teach Vocabulary

Music and Games

- Music, movement and games are common in most classrooms.
- Typically teachers do not intentionally use them to build language.
- Yet they have ideal design features:
  - Children are attending and producing language.
  - Games and music can be used many times.
- Music has special features:
  - Song lyrics are repeated multiple times and can include interesting words and grammatical structures.
  - Sounds associated with words can help support word learning (Lawson-Adams & Dickinson, under review).

Music

- Song is sung 4 times:
  - Times 1 and 3 set A words are taught (10)
  - Times 2 and 4 set B words are taught (10)
- Prior to the song words are introduced with picture cards in the same manner as prior to other activities.
- The second time words are introduced the teacher seeks to elicit words and definitions from children.
- Teacher uses a recording of the song.
Large Group Games

- Game is played 4 times.
  - Times 1 and 3 set A words are taught (10)
  - Times 2 and 4 set B words are taught (10)

- Prior to the game words are introduced with picture cards in the same manner as prior to other activities.

- The second time words are introduced the teacher seeks to elicit words and definitions from the children.

Playing Hot Potato

- Select the 2 picture cards and ask children to say and gesture the word.
- Give the cards to 2 different children.
- Play music and have students pass the picture cards around.
- Stop the music. Children stop passing the picture.
- Say one of the two words.
- Child with matching picture stands up and the class cheers!
- Students say the word and gesture.
- Say the definition of the word.
- Say the second word and repeat process.
Small Group Board Game

- Game is played 4 times.
  - Times 1 and 3 set A words are taught (10)
  - Times 2 and 4 set B words are taught (10)
- Introduction:
  - Words are introduced with picture cards in the same manner as prior to other activities.
  - The second time words are introduced, the teacher seeks to elicit words and definitions from the children.

Factors that Support Vocabulary Learning

- **Teacher-based Instructional factors**
  - Repeated exposure
  - Varied words are used that are new to the child.
  - Conceptual understanding is supported: story plot, content instruction, physical objects.
  - Explicit word meanings are provided.
  - Gestures are paired with the words.
- **Child-based learning factors**
  - The child is motivated and engaged. Play helps accomplish this.
  - The child uses the words.
  - Teachers respond to questions and comments about word meanings.
  - Children and teachers construct extended conversations (three for five).
Research Design

1. Will children learn words when they are taught using:
   a) Book reading?
   b) Games?
   c) Music?

2. Will these methods vary in how effective they are in teaching words?

3. When children learn words will they remember them for 2 months? For 4.5 months?

4. Will recall of words be improved by a review 2 months after words are initially taught?

Receptive Knowledge

Book Reading, Music, Games and Combined Compared to Control Words
Immediately after initial instruction

Expressive Knowledge

Book Reading, Music, Games and Combined Compared to Control Words
Immediately after initial instruction
Long-term Recall of Words: 2 and 4.5 months after instruction

Receptive Knowledge
Expressive Knowledge

The Intertwined Nature of Development
- Language-rich interactions help foster attachment, executive function while teaching language.
- These capacities are intertwined and mutually supportive and support reading comprehension.
- Development of all begins very early and continues through the preschool years.
- Parents and teachers both play important roles.

A Thought to Live By
I am only one. But still I am one. I cannot do everything. But still I can do something. And because I cannot do everything I will not refuse to do the something that I can do.