Opportunities for Language Learning: Is Tier 1 Meeting Children's Needs?

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current issues

- Substantial increase in research knowledge regarding early developmental links to later success
- Increase in understanding about the potential for early education to help close income gaps in language development and school achievement
- **Also increasing awareness that early childhood education may not be meeting its promise**

stepping back to development

- Evidence shows that many children arrive at school without the skills necessary for success
- Evidence shows that children who start behind…stay behind without targeted help
- Evidence shows that these skills are related to child background and experiences

developmental risks

- Before children arrive at preschool their lives have varied greatly in exposure to:
  - Poverty
  - Nurturance and language input from parents
  - Home cognitive enrichment and literacy environment
  - Outside the home experiences

background: early language development

- For most children, preschool is a period of rapid language and vocabulary acquisition
- Children from lower SES backgrounds do not always demonstrate this pace of acquisition, and end up well behind in language skills at school entry

background: later language & literacy consequences

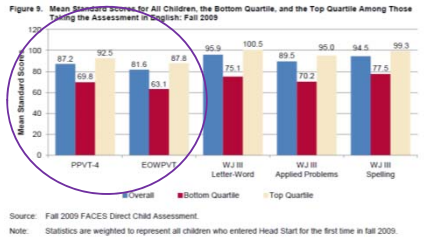
- Biemiller (2005) believes the bottom 25% begin kindergarten with 1,000 fewer root word meanings
- The relation of vocabulary to reading comprehension starts significant (Storch & Whitehurst, 2001) and gets stronger as reading material becomes more complex (Snow, 2002)

encouraging news

- Additional resources and attention for early childhood
- Professionalization of work force
- Increased focus on research-based educational curricula and strategies, including use of RTI models in preschool

the big picture

- RTI models are built off the idea that only a relatively small percentage of the children will require MORE than a high quality tier 1 experience to keep them or bring them into the average range or better
- But in many preschool settings, children are clustered into high need groups



OPRE Report 2011-33a

recent examples in our studies

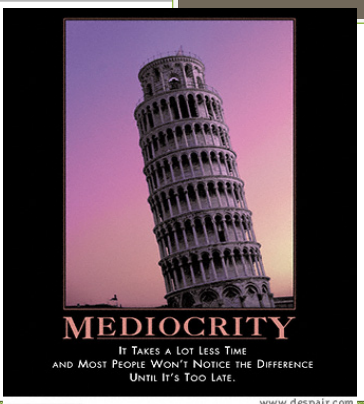
- Fall Expressive Vocabulary for area Head Start
  - Average standard score was at the 18th percentile
- Fall Title 1 preschool study 1(over 400 children)
  - PPVT standard score: 59% of the children below 25th percentile
- Fall Title 1 preschool study 2(over 780 children)
  - CELF-P Language Standard Score: 89 *SD = 16*

the big picture

- These findings suggest a very different classroom environment than is found even in many kindergartens, one where the children's abilities are disproportionately tilted toward being quite low
- Calls into question the feasibility or impact of an RTI approach when most of the class would qualify
- Places an **even larger** burden on the tier 1 environment to focus on language development

the big picture

- Much recent focus on tiers of instruction in preschool is based on the assumption (hope?) that the tier 1 core classroom instructional and environmental quality is good
- **Can we buy this assumption?**



quality?

- Very mixed evidence on **structural** features like ratio, teacher education, length of day
- Consistent evidence on **process** quality: instructional content, instructional strategies, teacher-child interactions
- ***The problem is: that evidence says it is not nearly good enough!***

what do we know about what is happening in the classroom?

- Global classroom observations (CLASS, ECERS-R), state QRIS systems
  - Structural quality "good," instructional quality "poor"
  - Denny et al. (2012), 114 Tennessee classrooms: CLASS instructional support = 2.5 on 7-point scale
  - Greenwood et al. (2012) 66 classrooms = CLASS instructional support = 2.6

what do we know about what is happening in the classroom?

- Fine grained observations of language interactions?

recent work on the language environment in classrooms

- High quality language models- input can make a difference for child language development
  - (Chien et al., 2011; Mashburn et al., 2008; Wasik & Hindman, 2011)
- Many lost opportunities for rich language
  - (Early et al., 2010; Wilcox-Herzog & Kontos, 1998)
- Teachers show variability in their language behavior profiles
  - (de Kruit et al., 2000; Huttenlocher et al., 2002; Justice et al., 2008; Turnbull et al., 2009)

a peek at classroom language environments

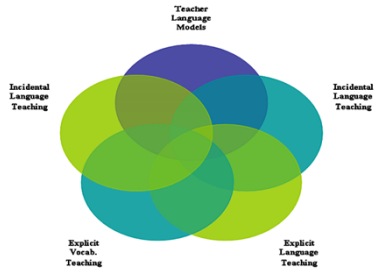
- Chien et al. 2010: children who spent the majority of their time in free play gained the least in language, literacy, & math, especially if they were poor
  - **5%** of the day spent being read to, **6%** in oral language activities (**21%** in routines)
- Early et al. 2010: lots of time spent waiting, in routines, "No coded learning activity"

And these are **all** state-funded programs with the highest average teacher education levels of all program types

a peek at classroom language environments

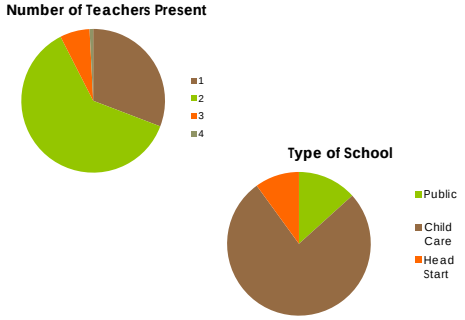
- *Classroom Language Environment Observational Scales* (CLEOS), direct observational measure of classroom language use and instruction by teacher/assistant
- Coding captures both incidental/ conversational language choices and intentional/ instructional language choices of the teacher(s) and identifies the number of different classroom contexts (e.g., circle time, snack, free play) in which these language behaviors occur
- 120 classrooms, representing mix of private child-care, head start, public pre-k, collected within context of IES-supported vocabulary curriculum development project

Conceptual Model of the Classroom Language Environment: Teacher Role



some examples

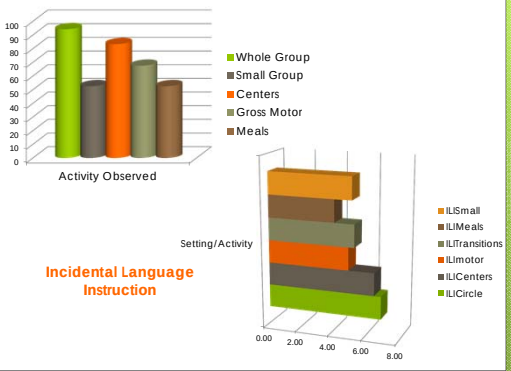
- In response to child speech, encourages further utterances by asking follow up questions, making comments, etc.
- Models specific language by labeling objects and actions in conversation with children
- Provides child-friendly definition when introducing new vocabulary words (e.g., using synonyms/ antonyms, semantic links)

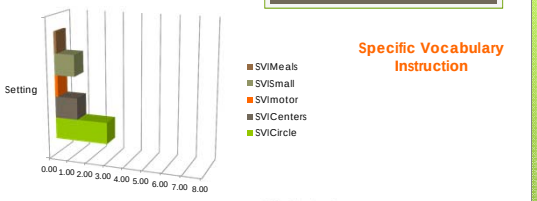


descriptive statistics for CLEOS observational measure

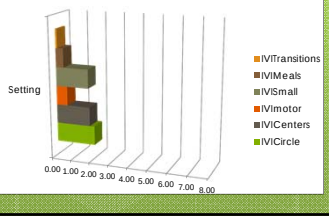
Observational Subscale	Mean (*SD*)	Range	Maximum Possible
General Language Environment	7.31 (1.15)	3.00 – 8.00	8
Incidental Language Instruction	2.78(1.31)	0.00 – 7.00	10
Incidental Vocabulary Instruction	1.29 (0.81)	0.00 – 5.00	5
Explicit Vocabulary Instruction	1.12 (1.14)	0.00 – 8.00	8
Book Reading Behaviors	4.84 (3.85)	0.00 – 13.00	13

Note that book reading was only observed in 75% of the classrooms





Specific Vocabulary Instruction



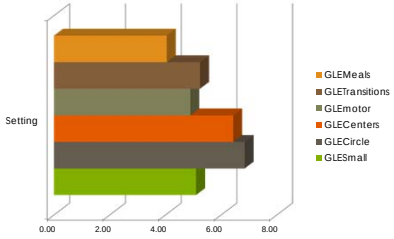
Incidental Vocabulary Instruction

So what do we DO?

NAEYC Position Statement (2009):

"A teacher's moment-by-moment actions and interactions with children are the most powerful determinant of learning outcomes and development. Curriculum is very important, but what the teacher does is paramount."

"To shrink the achievement gap, then, early childhood programs need to start early with proactive vocabulary development to bring young children whose vocabulary and oral language development is lagging—whatever the causes—closer to the developmental trajectory typical of children from educated, affluent families."



Build on places of some strength…

can curricula help?

- Not if it sits in the box.
- Not if not implemented well.
- Not if it actually does not work……

can curricula help?

- At least 60 commercially available preschool curricula available today (not counting just activity guides)
- Of these, only about 12 have had high quality research studies on their effectiveness
- Of these, only **4-5** seem to have any evidence on literacy, language, or math

can curricula help?

- This means that the overwhelming majority of preschool/Head Start/pre-k /child-care classrooms are currently using tier 1 curricula of **NO** *known* evidence-based value

can curricula help?

- But, an *effective* curriculum CAN:
  - help shape how **time** is used.
  - help shape **content** coverage to build background knowledge.
  - provide **scaffolding** to the teacher, just like she scaffolds the children.
  - Incorporate evidence-based instructional **strategies**

results of NELP meta-analysis for shared-reading interventions: effect sizes for type of reading

Type of Reading	Effect Size	*p* for ES	*N* Studies
Dialogic Reading	.59	.01	9
Not Dialogic Reading	.41	.11	6

effect sizes for type of language outcome

Outcome Measure	Effect Size	*p* for ES	*N* Studies
Vocabulary	.60	.008	9
Composite Oral Language	.35	.21	5

can professional development help?

- Hamre et al. (2012) RCT on college-credit course, and Dickinson & Caswell (2007) both show improvements in teacher practices, but did not measure child outcomes
- Powell et al. (2010) intensive coaching led to child outcomes for several emergent literacy areas **except** oral language

together is better

- Landry et al. (2011) two years of structured, technology-enhanced PD **AND** classroom mentoring **AND** research-derived curriculum led to some child gains in language and literacy
- Schwanenflugel et al. (2010) targeted PD **AND** instructional strategy lessons led to child gains in PA, print and vocabulary (just PD had no effects)
- Lonigan et al. (2011, 2012) comprehensive curriculum including many materials and lessons **AND** extended PD **AND** in class coaching led to child gains on, PA, Print, and Vocabulary in two studies

together is better

- Might be because changes both teacher intentionality and provides concrete methods by which to act on these intentions
- Many teachers stuck in mindset of *leaning back* from high-quality, purpose-driven interactions with children or simply do not know what to do during those interactions

where do we go from here?

- More effort on **improving** tier 1 is needed
  - Including more curricula and instructional strategy studies and development
- More effort on professional development is needed
  - How change well-ingrained language-use patterns?
  - How bring this work to scale?

take-home message

Preschool skills can predict into adulthood

Every minute of silence in a classroom is a minute potentially lost to language development

Teacher-child language interactions can only build learning IF they are happening

from Greenwood et al. (2012)

"Tier 1 improvement is an early priority in RTI efforts because without it, Tier 1 remains a continuing source of larger numbers of children not learning as well as they could be, ….Thus, improving tier 1 is critically important." p. 14