

## Using Action Research Methods to Infuse Evidence-Based Language Facilitation Practices in Head Start Preschool Classrooms"

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Wilcox et al., SRCD, 2001

## The Problem

- ✎ Early childhood language abilities are strongly associated with subsequent academic success
- ✎ Two populations served through Head Start at-risk in this regard:
  - Children from low-income families (experiential constraints)
  - Children with language impairment (ability constraints)

Wilcox et al., SRCD, 2001

## Promising Trends

- ✎ Scientific inquiries have yielded a broad base of effective language facilitation strategies
- ✎ The early childhood classroom can be an optimal setting for promoting first and second language acquisition

Wilcox et al., SRCD, 2001

## The Realities of Practice

- ✎ Profiles of early childhood classrooms, including Head Start, indicate limited teaching behavior that supports language development
- ✎ Substantial gaps between existing and emerging scientific knowledge and the realities of the preschool classroom language environment

Wilcox et al., SRCD, 2001

## Science and Practice

- ☞ Traditionally, researchers presumed to generate information, practitioners use it
- ☞ Practitioners often find scientific knowledge unusable
- ☞ Researchers often lack knowledge regarding realities of practice
- ☞ New strategies for conducting research and new strategies for consuming the products of research may be required

Wilcox et al., SRCD, 2001

## Purpose

- ☞ Develop and implement action research methods to promote evidence-based language teaching practices in Head Start preschool classrooms
- ☞ Evaluate outcomes in terms of changes in teacher and child behavior

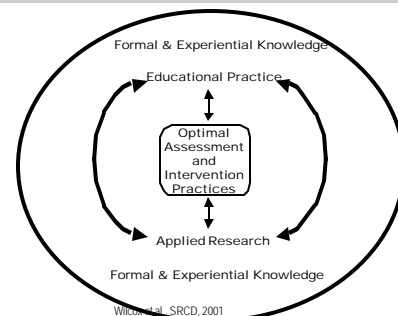
Wilcox et al., SRCD, 2001

## Specific Research Questions

- ☞ To what extent does an action research model promote the use of validated language facilitation practices by Head Start classroom personnel?
- ☞ Relative to questions #1 to what extent can changes in the children's language behavior be documented?
- ☞ What is the perceived value and feasibility of participation research methods? In particular, does action research facilitate a sense of commitment and ownership? Does it actually allow for adjustments to accommodate practice needs? Does it result in interpretable and useful findings?

Wilcox et al., SRCD, 2001

## Science-Practice Model



Wilcox et al., SRCD, 2001

## Research Process and Key Activities

- ✎ Phase I: Identify Key Concerns and Desired Outcomes
  - Focus group discussions
  - Ethnographic interviews
- ✎ Phase II: Research Action Plans
  - Action teams formed for 3 pilot classrooms
  - Practice issues selected based on Phase I results
  - Developed and implemented plans for integrating new practices into pilot classrooms
- ✎ Phase III: Analysis and Review of Pilot Classroom Data
  - Adjustments in practices made as necessary
- ✎ Phase IV: Experimental Replication and Dissemination

Wilcox et al., SRCD, 2001

## Experimental Design

- ✎ 6 experimental and 6 control classrooms participated
- ✎ Random assignment by program
- ✎ Typical child subjects were selected by lottery across the participating class (pool of 206 children)
- ✎ All child subjects with language disorders were included in the research
- ✎ A total of 23 teachers and teaching assistants (TA) were videotaped during free play.
- ✎ There was one Spanish and one English speaking adult model per room.
- ✎ Intervention provided to experimental classes during the school year
- ✎ Control classes were provided with a placebo (i.e., the experimenters spent the same amount of time with control teachers as they did with experimental teachers)

## Child Participants

	Experimental (n=50)	Control (n=42)
<b>Native English Sp.</b>		
Typical	17	15
Atypical	1	6
<b>Native Spanish Sp.</b>		
Typical	23	17
Atypical	9	4

Wilcox et al., SRCD, 2001

## Pre-Post Measures: Children

- ✎ Preschool Language Scale –3
  - All children given the PLS-Receptive pre/post
  - PLS-Expressive given to children in their respective native languages at pre/post
  - PLS-Expressive given to Native Spanish speakers in English and Spanish at post-intervention
- ✎ PPVT-III
- ✎ Expressive Vocabulary Test (English) (given to all children who established a basal with no more than one error on the PPVT)
- ✎ Expressive One Word Picture Vocabulary Test – Spanish

Wilcox et al., SRCD, 2001

## Procedures: Experimental Classes

- Biweekly team meetings were held for all classroom personnel (teachers, aides, special educators, other support personnel) and the university researchers
- The team meeting discussions focused on use of language teaching practices, training on language development, and sharing of ideas to implement in the curriculum.
- The classroom observation tool emerged from these discussions at the biweekly team meetings, researcher observations of the classrooms, and established principles of language development.
- Each teacher & TA was observed monthly by an SLP Researcher, using the developed classroom observation tool (Biweekly observations of each class)
- Following each observation, the teachers received feedback from the SLP on use of targeted strategies. The feedback sessions emphasized teachers' use of effective strategies, as well collaborative "brainstorming" on how to use these and new strategies more effectively and consistently in the classroom.

## Pre-Post Measures: Teachers

- ✎ Pre- and post-test videotaped samples were collected of the teachers to evaluate use of strategies to promote language development
- ✎ The videotaped samples were independently analyzed by graduate assistants trained in using the classroom observation tool.
- ✎ Inter-coder reliability of 90% was achieved.

Wilcox et al., SRCD, 2001

## Procedures: Control Classes

- ✎ Control participants were also provided with biweekly meetings. Those in attendance were the same categories of personnel as described for the experimental classes. The teachers were encouraged to use the biweekly meeting time as desired. Personnel were told that the University researcher participants were experts in language and promoting language development and would be available as a resource as needed. The University personnel answered any questions that were directly addressed to them but did not initiate any topics.
- ✎ Classroom observations were conducted biweekly. However, no feedback sessions were held.

Wilcox et al., SRCD, 2001

## Classroom Observation Tool

- ✎ Six areas were targeted:
  - Creating opportunities for communication
  - Teacher responses to increase child discourse
  - Facilitating peer interactions
  - Teaching new vocabulary
  - Supporting second language acquisition
  - Overall interaction style

Wilcox et al., SRCD, 2001

### Child Language Goals Developed by the Teams

- ✎ Developing personal storytelling skills
- ✎ Increasing complex reasoning
- ✎ Talking beyond the “here and now”
- ✎ Increasing peer interactions
- ✎ Learning new words and concepts
- ✎ Second language acquisition

Wilcox et al., SRCD, 2001

### Changes in Teacher Behavior (Mean Frequency per 20-min)

Behavior	Pre-Intervention		Post-Intervention	
	Exp	Control	Exp	Control
Creating Opp.	14.16	11.04	28.66*	14.07
Teacher Resp.	87.08	69.09	108.16*	67.72
Peer Interaction	15.08	8.36	27.25*	11.09
Teach Vocab.	36.75	28.27	46.33*	23.72
2 <sup>nd</sup> Lang. Acq.	11.41	9.81	16.25*	10.72
Total Enhancing	164.50*	123.18	226.66*	121.54
Negative	5.75*	1.63	0.83	3.09*

\*p<.05

Wilcox et al., SRCD, 2001

### Pre-Post Child Data

Test/Group	Pre-Intervention		Post-Intervention	
	Exp	Control	Exp	Control
PLS-3 Rec.	67.18	68.86	79.12*	71.76
PLS-3 Exp. ENG				
English Speakers	96.39	79.95	114.56*	85.71
Spanish Speakers	NA	NA	97.06	94.48
PLS-3 Exp. SPA	83.34	90.43	97.06*	94.48
Spanish Speakers				
PPVT	66.16	69.17	74.50	73.43
EVT	93.60	88.76	108.10*	96.43
EOWVT SPA				
Spanish Speakers	85.09	83.48	91.41	87.62

Wilcox et al., SRCD, 2001

### Results

- ✎ Teachers in the experimental classrooms demonstrated greater use of specific language enhancement strategies to achieve the six language goals.
- ✎ The children in the experimental classrooms showed significantly greater gains in their language scores as measured on the Preschool Language Scale-3 and the EVT. No differences were noted on the other standard measures.
- ✎ Both first and second language gains were observed in both groups; however, the experimental group demonstrated greater change over time.

Wilcox et al., SRCD, 2001

## Teachers' Subjective Impressions of Benefit

- ✎ Teachers reported that they learned:
  - More about language development
  - How all the different areas in the classroom can be used for language learning
  - To increase their expectations of language and literacy skills for preschoolers
- ✎ Activities that teachers felt were beneficial
  - Regular meetings to plan and share ideas for language learning in their classrooms
  - Feedback from the classroom observation tool as to how to increase their use of language facilitation practices
  - Changing small group activities to center around one book for an entire week
  - Adding opportunities for children to tell personal stories during lunch

Wilcox et al., SRCD, 2001

## Teachers' Recommendations for Future Replications

- Establish convenient, regular meeting time with all teachers and assistants
- Ask teachers what they want to learn and how they want to utilize your knowledge base to benefit their classrooms
- Fill in the "gaps" for teachers by providing information on language learning and important language skills
- Provide specific activities and materials when necessary to initiate language learning activities
- Point out specific language enhancing opportunities as they occur during interactions through use of the classroom observation tool

Wilcox et al., SRCD, 2001

## Conclusions

- ✎ The classroom observation tool was beneficial in training teachers to use specific language enhancement practices in the classroom.
- ✎ The feedback sessions provided positive reinforcement to teachers using specific, relevant examples of classroom interactions. The teachers learned about their strengths and developed goals for improvement.
- ✎ The SLPs served as a resource for teachers to address the language needs of all the children in the classroom.
- ✎ Regular meetings with teaching teams provided a good forum for training and curricular planning.
- ✎ SLP participation in team meetings contributed to improved integration of IEP goals into the classroom curriculum.