

Predictors and Outcomes of Early Childhood Classroom Quality

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What do we typically measure?

- Warm and responsive interactions
- Good communication
- Variety of activities encouraging reasoning
- Culturally appropriate activities
- Opportunities for large and small-group activities and alone
- Consistent, positive mgmt. of behavior
- Good planning and time management

Measures Reviewed

- CIS - Caregiver Interaction Scale
(Arnett, 1989)
- CLASS – Classroom Assessment Scoring System (Pianta, LaParo & Hamre, 2004)
- COS-1 and COS-3 – Classroom Observation System (NICHD SECC)
- ECERS – Early Childhood Environment Rating Scale Revised
(Harms, Clifford, & Cryer, 1998)

Measures Reviewed

- ECERS-E – ECERS Extension
(Sylva, Siraj-Blatchford, & Taggart, 2003)
- ELLCO – Early Language and Literacy Classroom Observation Toolkit
(Smith & Dickinson, 2002)
- ORCE – Observational Record of the Caregiving Environment (NICHD ECCRN, 1996)
- PQA – Program Quality Assessment
(High Scope, 1989)
- Profile – Assessment Profile for Early Childhood Programs (Abbott-Shim, Sibley, & Neel, 1992)

What do researchers want observational measures to do?

- 1. Be valid, reliable, easy to obtain and train
- 2. Succinctly describe range of classrooms along several dimensions
- 3. Reflect various structural variables
- 4. Act as predictors of children's outcomes
- 5. Be able to detect change in a PD intervention or document fidelity of approach/curriculum
- 6. Be valid across cultures

1. Validity, Training, & Reliability

- Standardization sample
- Cost of purchasing and training
- Materials to help learn
- Staying reliable
- Child-focused measures used to represent the class
- Who collects the observation data?

2. How do the measures relate to each other?

- ECERS – PQA: $r = .86$
- ECERS – Profile: $r = .64$ and $.74$
- ECERS - CLASS Emotion: $r = .54$
- ECERS – CLASS Instruction: $r = .44$
- ECERS – Snapshot FP/centers: $r = .46$
- ELLCO – Profile: $r = .44$

3. Predictors of Quality

- States w/ structural regulations - ECERS
- Being in a school setting – Snapshot whole group
- Lower group sizes and ratios – ECERS, ORCE, Profile
- Poverty density – CLASS and ECERS
- Teacher education – ECERS (older studies and current Head Start); but not in new studies (NCEDL; NC, GA & NJ Pre-K)
- Teacher age – PQA
- Teacher DAP beliefs, non-authoritarian attitudes – ECERS, CIS, ORCE, Profile, CLASS
- Teacher depression - CLASS
- Professional membership – Profile
- In-service training - PQA

Structure-Quality Correlations across 4 Large Studies

- Total No. Classrooms = 2100
- Median correlations w/quality were:
 - Ratio -.19 (-.39, .04)
 - Teacher experience .08 (.01, .16)
 - Group size -.06 (-.15, .10)
 - Teacher education .07 (-.28, .31)
 - Teacher w/BA -.04 (-.28, .24)

Correlations computed within study. Range is in parentheses

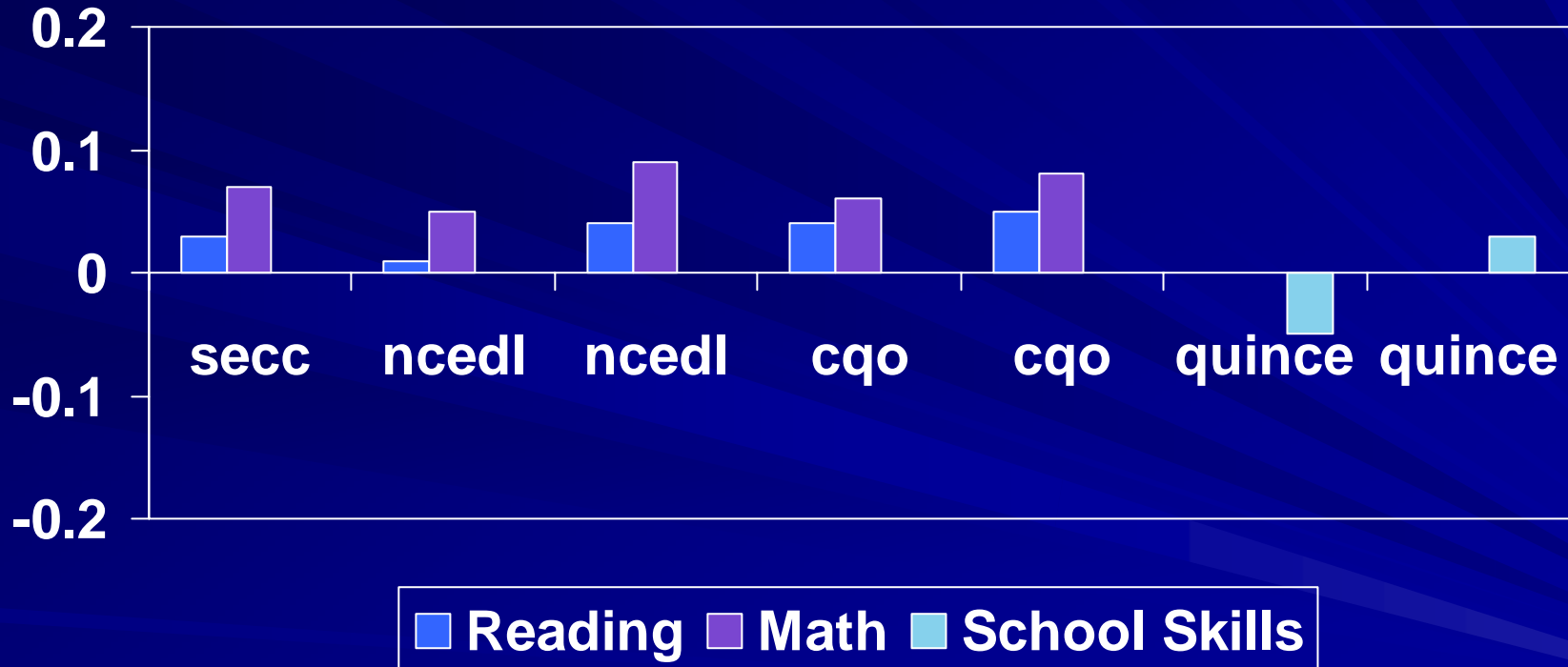
4. Child Outcomes Predicted by Quality Measures

- ECERS – math and cognitive/language outcomes in CQO, NCEDL, FACES, MAF studies; **prob behavior** in CQO
- ECERS-E – In GB, stronger predictor than the ECERS
- ORCE – **positive peer interactions** at 36 mo and cognitive/language at 4.5 yrs
- COS – **problem behaviors and social conversations**
- CLASS – emotional climate with **low problem behaviors**
- Snapshot teacher interactions – high level cognitive activity
- ELLCO – children's vocabulary and literacy scores
- Assessment Profile – **fewer problem behaviors**

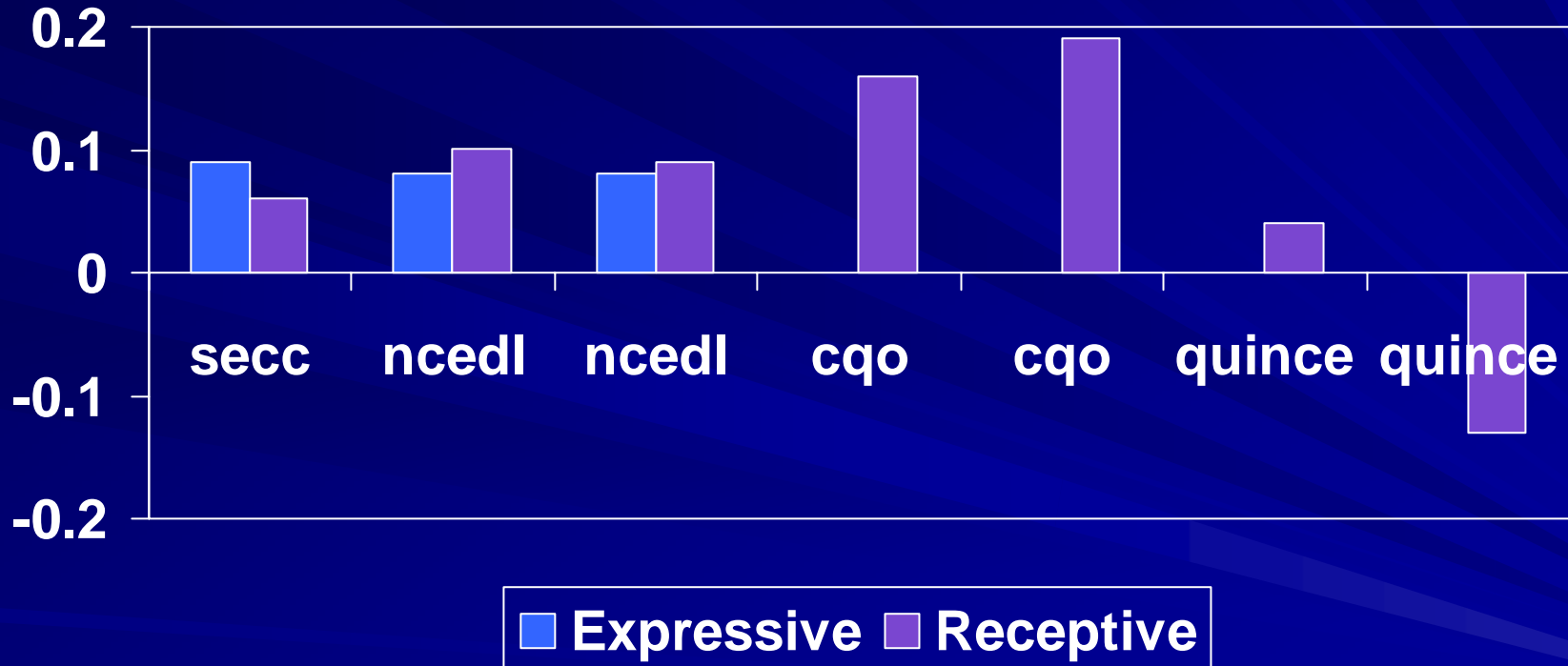
Quality-Outcomes Correlations across 4 Large Studies

- Total number of children = 4400
- Partial correlations, controlling for site, maternal education, and child's ethnicity
 - Academic achievement .06 (-.13, .09)
 - Language measure .08 (-.16, .19)
 - Social-emotional comp. .07 (-.01, .14)

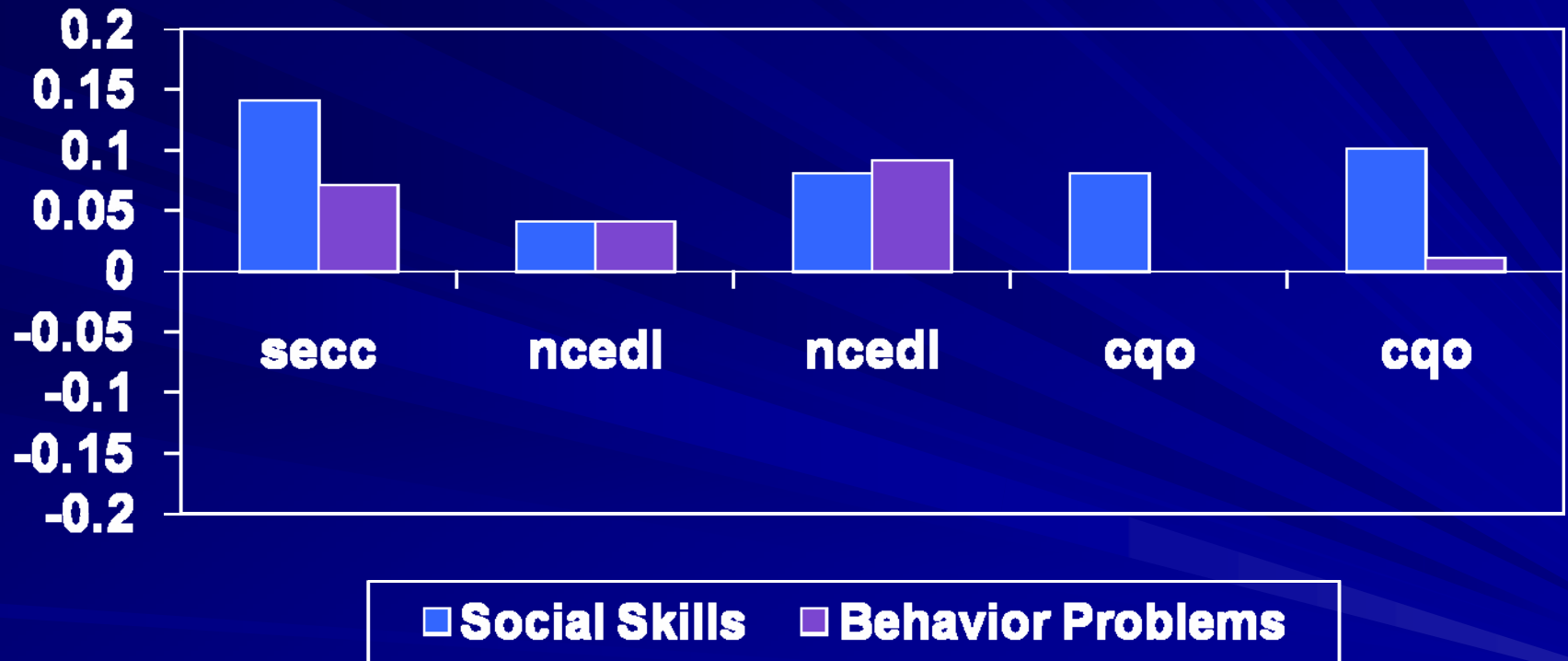
Quality of Care and Academic Achievement: partial correlations



Quality of Care and Language Skills: partial correlations

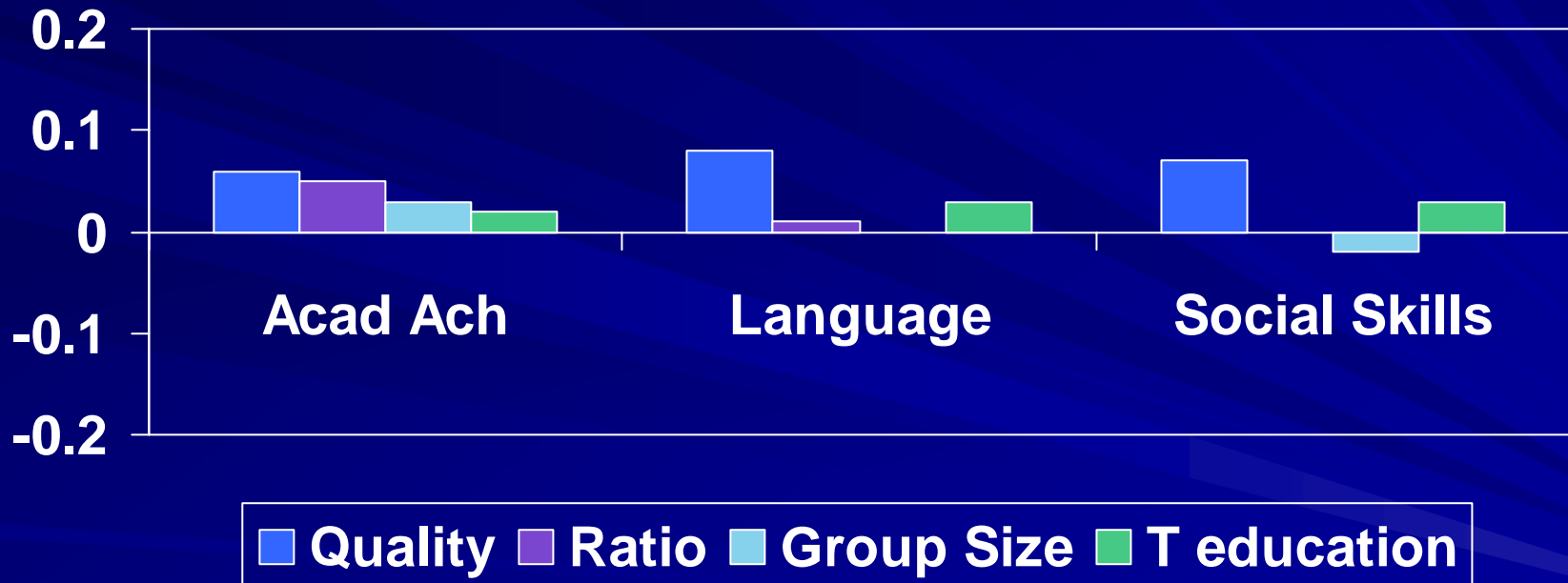


Quality of Care and Social Skills: partial correlations



Behavior Problems was reversed so positive association indicates fewer problems

Center Care – Median Partial Correlations Between Quality Indicators and Child Outcomes



5. Sensitive to Interventions?

- ECERS – several studies
- ELLCO, Profile, Snapshot – a few
- Many quality enhancement interventions are assessment-based (usually ECERS)
- Training of consultants is a big issue
- Breadth of the interventions is often broader than the outcome measure can assess

6. Cultural appropriateness

- 4 studies (at least) show that the ECERS measures the qualities that different cultures value for their children
- Statistically appropriate, but
- Conceptually, we may need more

Future Work

- Measures refinement needed; continued analyses of existing large databases
- Measures for FCC homes and for infant classrooms need more research
- Parent involvement – both assessment of and how parents use QRS information
- Research on the reliability of TAs' or consultants' use of the quality measures
- Linkages between QE interventions, classroom quality and child outcomes