

## **D4: Research Findings on Peer Effects, Quality, and Outcomes – Equity, Quality and Policy Implications**

Thursday, February 8, 2018

10:15 a.m. – 11:30 a.m. | Roanoke

### **1. Descriptive Information**

#### **D4: Research Findings on Peer Effects, Quality, and Outcomes – Equity, Quality and Policy Implications**

Research findings will be presented on how the portion of children with specific characteristics (such as being chronically absent, poor, Latino, African American, Dual Language Learners, or of different ages) predict cognitive and socio-emotional outcomes for the group of children in attendance, and whether they are mediated or moderated by the quality of the setting.

The session begins with a brief presentation of findings from existing research followed by “flash talk” presentations of new findings. In 3 minutes each researcher will discuss study questions, methods, analyses, key findings and implications. Audience members will be encouraged to reflect on the presentations from their unique disciplines. The discussant will examine policy implications with a focus on issues of quality and equity related to children served through Head Start, childcare subsidies, and public pre-k programs.

#### **Facilitator**

**Diane Schilder**, Education Development Center, Inc.

#### **Panelists**

**Kelly Purtell**, Ohio State University | *Classroom Age Composition and Children’s Cognitive and Socio-Emotional Growth: The Implications of Classroom Quality and Teacher Qualifications*

**Sara Anderson**, West Virginia University | *Pre-K Absenteeism and School Readiness: The Moderating Role that the Gender of Children in Attendance and Classroom Quality Have on Child Outcomes*

**Eva Marie Shivers**, Indigo Cultural Center | *What About the School Readiness Gap? Effects of Children’s Gender and Race on Socio-Emotional Outcomes and the role of Child Care Mental Health Consultation*

**Meghan Broadstone**, Education Development Center, Inc. | *Relationship between the Portion of Children with Racial/Ethnic Characteristics and Quality—Implications for Quality Rating and Improvement Systems*

#### **Discussant**

**Jana Martella**, Education Development Center, Inc. and the Center on Enhancing Early Learning Outcomes

#### **Scribe**

**Katie Caldwell**, ICF

### **2. Documents Available on Website**

- Research Findings on Peer Effects, Quality, and Outcomes - Equity, Quality and Policy Implications
- Classroom Age Composition and Children's Cognitive and Socio-Emotional Growth: The Implications of Classroom Quality and Teacher Qualifications

### 3. Brief Summary of Presentations

#### Introduction

- The topic of peer effects includes both how children with specific demographic characteristics in a classroom and/or home setting affect one another and how the composition of the students attending a child care setting affects quality and outcomes
- Existing research shows that:
  - Mixed- income grouping benefits all children at all economic levels, except those at the highest income level
  - Even though research shows there are benefits to children participating in classrooms and settings that are heterogeneous in terms of income policy constraints exist that create pressure to keep homogeneous income groupings. For example, Head Start requires that 90% of children live in families at or below 100% of the federal poverty level and the Preschool Expansion and Development Grant (PDG) requires that all children in attendance live in families below 200% of the federal poverty level. These requirements create homogeneous income groupings.
- The research presented at this session suggest some benefits exist to heterogeneous groupings, some instances when homogeneous groupings appear to have some benefits such as with age-groupings, and some variables that moderate or mediate the impacts.

*Note: Eva Marie Shivers could not attend the meeting at the last minute.*

- **Summary of Presentation #1: Kelly Purtell**

Classroom age composition and children's cognitive and socio-emotional growth: the implications of classroom quality and teacher qualifications

- Investigated 3 questions:
  - What is the association between the age of classroom peers and children's academic growth and social behavior development across one year of Head Start?
  - Are these associations moderated by classroom quality?
  - Are these associations moderated by teachers' education and experience?
- Methods:
  - Used data from the Family and Child Experiences Survey (FACES 2009), a nationally representative sample of children in their first year of Head Start. Our sample included 2,829 children in 486 classrooms.
    - This is the first national dataset to include information of the ages of all children in the classroom, which was reported by teachers (proportion age 3, age 4, age 5).
  - Analytic strategy: regression models with interaction terms and sampling weights
- Measures:
  - Teachers reported age composition of the classroom
  - Child outcomes: direct assessments of language and literacy, math
  - Teacher reported on behavior and social skills
- Findings
  - When 4-year-old children were in classrooms with higher proportions of 3-year olds, they demonstrated less gains in literacy and math skills across the year. 3- year olds academic gains were unrelated to the age of their classmates, as was social behavioral development for both the older and younger children.
  - When 4-year olds were in classrooms with a lower proportion of 3-years, high classroom quality was linked with greater gains in literacy. However, when 4- year olds were in

classrooms with a higher proportion of 3-year olds, classroom quality was unrelated to their gains in language and literacy. A similar pattern emerged for math.

- Teacher experience did not moderate relations between age composition and child outcomes.
- Teacher education did moderate relations between composition and literacy gains for 4-year olds, such that the negative associations between higher concentrations of 3-year olds in the classroom and 4-year olds' literacy development was only present when the teacher did not have at least an Associate's degree. However, this pattern did not emerge for math.

- Implications for Policy and Research

- Although mixed-age environments may have positive benefits for preschool aged children, the current work shows that there are also potential negative consequences, especially for older children in the classroom.
- Future research needs to identify the factors within a mixed-age classroom that promote positive development for children of all ages.
- Future research should also incorporate a wider range of children's outcomes to capture developmental processes that may be positively influenced by mixed age peers, such as the development of leadership and empathy.
- Teachers may benefit from training or professional development that focuses specifically on how to navigate challenges associated with mixed-age classrooms.

- **Summary of Presentation #2: Sara Anderson**

How do Pre-K classroom attendance, quality and gender affect school readiness?

- Research questions:

- Is pre-K classroom level chronic absenteeism associated with compromised school readiness and behavior?
- Is the association moderated by classroom instructional quality and/or gender?

- Methods:

- Sample: universal pre-K program in public schools in Tulsa, OK
  - Teachers with BA and pre-k certification, 1:10 ratio
    - Cohort of 1,204 from pre-K in 2005-2006
- Measures:
  - Chronic absenteeism – missing more than 10% of the school year (17 days or more)
  - Classroom quality was measured by the class
  - Covariates from parent survey and admin data
  - School readiness measures at the start of K
- Analytic strategy:
  - Multiple imputation
- Findings:
  - Classroom level chronic absenteeism alone was not associated with school level achievement or behavior
    - Though individual level absenteeism is for achievement
  - Spelling and instruction support: when pre-K students were in classrooms with higher peer chronic absenteeism, they demonstrated better spelling skills in classrooms with lower (vs higher) instructional quality
  - Apathy and instruction support: when pre-k students are in classrooms with higher peer chronic absenteeism they demonstrate more apathy in classroom with higher instructional quality
  - In high chronic absenteeism classrooms, boys demonstrated more apathy than girls
- Discussion questions
  - Why doesn't classroom quality help children in classrooms with high rates of absenteeism?
  - How does chronic absenteeism influence classroom quality?
  - Why do boys suffer in high chronic absenteeism classrooms more than girls?

- No data were available on why these children weren't getting to school

- **Summary of Presentation #3: Meghan Broadstone**

Racial/Ethnic and Other Demographic Characteristics and Indicators of Quality

- Is child care providers' engagement with state and federal initiatives that support collaboration linked to differences in program quality?
- Peer Effect questions:
  - What other factors are linked to program quality
  - Are these factors linked to QRIS ratings
- Methods:
  - Online survey administered to programs in Vermont and Maryland
  - Questions about program characteristics, provider engagement with QRIS
- Findings on race of children and QRIS ratings
  - As the percentage of minority students goes up in programs, QRIS ratings go down
  - Specifically the % of black students is driving the majority of the findings in the overall model
  - Explored relation between race and QRIS rating by type of program: family child care and center based care - only significant for center based care
  - Overall SPED funding is a significant predictor of QRIS rating
    - This finding remained significant for center-based and family child care
- What are the different states doing to address equity and access to high rated programs?
- Does this resonate with other research findings?
- What role do special education funding and regulations play?

- **Summary of Presentation #4: Jana Martella**

- Discussion of policy implications
  - The granularity of the research shared during this presentation may not lend itself to the policy
  - Thoughts on each presentation
    - Kelly - every year matters, what are the effect sizes of the study when the next year is mixed?
    - Sara - every day matters- what about child development has implications for chronic absences?
    - Meghan - every part of the system really matters- multiple variables muddy the outcome

#### 4. Brief Summary of Discussion

- Issue of social-emotional teacher report: How many teachers didn't have a degree with the push for more degrees for teachers in Head Start?
  - 18% didn't have a degree
- Is there bias present in the race ethnicity QRIS?
  - Excellent question and this would need to be explored further
- What parents are looking for may not match up with our rating of quality. But a different composition may really support that one individual child.
- There could be a difference in attitudes towards pre-K versus 1<sup>st</sup>-12<sup>th</sup> grade. If pre-K was treated in the same way as "regular" school perhaps pre-K would be seen as "real" school.
- Which boys are showing apathy? The boys that have been absent or other children?
  - Did control for own absenteeism. This finding was for over and above their own absenteeism.
- Interesting research out of Harvard about parent perceptions about absenteeism. Parents are underestimating their kids' absenteeism by 50%.
- When you share the info back to Vermont and Maryland what will they do with that?
  - Vermont: they pushed back and asked about economic diversity versus race
  - Maryland is a fairly new QRIS system, they take the information seriously and provide TA to those facilities. Now the emphasis in the state is to work with the level 1 facilities to ramp up the quality. The first step was just getting them into the QRIS.

**5. Summary of Key issues raised** (facilitators are encouraged to spend the last 3-5 minutes of sessions summarizing the key issues raised during the session; bullets below are prompts for capturing the kinds of issues we're looking for)

- Although mixed-age environments may have positive benefits for preschool aged children, the current work shows that there are also potential negative consequences, especially for older children in the classroom.
- Future research needs to identify the factors within a mixed-age classroom that promote positive development for children of all ages.
- Future research should also incorporate a wider range of children's outcomes to capture developmental processes that may positively be influenced by mixed age peers, such as the development of leadership and empathy.
- Teachers may benefit from training or professional development that focuses specifically on how to navigate challenges associated with mixed-age classrooms.
- Classroom level chronic absenteeism alone was not associated with school level achievement or behavior.
- Apathy and instruction support: when pre-k students are in classrooms with higher peer chronic absenteeism they demonstrate more apathy in classroom with higher instructional quality.
- In high chronic absenteeism classrooms, boys demonstrated more apathy than girls.
- As the percentage of minority students goes up in programs, QRIS ratings go down, specifically the percentage of Black students is driving the majority of the findings in the overall model.
- Overall Special Education funding is a significant predictor of QRIS rating.