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Teacher-Pupil Link Crucial to Pre-K Success, Study Says

By Linda Jacobson

The quality of the relationship between preschool teachers and their pupils might be more important to children's learning than such factors as class size and teacher credentials, a new study suggests. That finding could raise questions about traditional measures of preschool quality favored by early-childhood experts and state policymakers.

Using a sample of more than 2,400 4-year-olds in 671 pre-K classrooms in 11 states, researchers at the University of Virginia found that minimum standards for classrooms—including teachers' field of study, their level of education, and the teacher-to-child ratio—were not associated with children's academic, language, and social development.

Instead, academic and language skills were stronger when children received greater instructional support, such as feedback on their ideas and encouragement to think in more complex ways. And children's social skills were more advanced when teachers showed more positive emotions and were sensitive to children's needs.

The study focused on 10 preschool benchmarks measured in an annual report by the National Institute for Early Education Research, a research organization based at Rutgers University in New Brunswick, N.J., that tracks states' efforts to meet preschool-quality indicators.

Those benchmarks include whether states require lead teachers in state-financed preschool programs to have a bachelor's degree, provide at least one meal a day to students, and mandate ongoing training for teachers.

Elements of Quality

"If one were to rest the whole system on those structural indicators that people tend to talk about, you could vastly overestimate the level of quality that is in the system," said Robert C. Pianta, the dean of education at the University of Virginia, in Charlottesville, and one of the authors of the study. It was released last week in the May/June issue of the journal *Child Development*.

Mr. Pianta stressed, however, that the study does not imply that those "elements of program infrastructure" are not important. Instead, both such elements and the supportive qualities identified are needed, he said.

W. Steven Barnett, the director of NIEER, which partially financed the research, said that the

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study "provides no basis for concluding that the program characteristics associated with the benchmarks are not important for creating programs that are highly effective for all children and meet the broad needs of all of the children they serve."

To conduct the study, the researchers tested children's skills at the beginning and the end of a certain time frame in the program, typically over the course of a school year.

They collected information about whether programs met nine minimum standards of quality recommended by professional organizations, such as the National Association for the Education of Young Children, in Washington.

They also rated the quality of the classroom environment and the interactions between teachers and children, using an instrument devised by Mr. Pianta called CLASS, which stands for **Classroom Assessment Scoring System**. That assessment tool measures 10 aspects of teaching, divided into three broad categories: instructional support, emotional climate, and classroom organization.

The CLASS instrument has been used as part of the long-running, federally funded Study of Early Child Care and Youth Development. In a 2005 study, Mr. Pianta showed that teachers who give both instructional and emotional support can raise achievement among 1st graders who are considered at risk for school failure because of such factors as poverty and low maternal education levels.

Similar findings were shown for children displaying behavioral and social difficulties: When teachers were warm, sensitive, and positive, the children performed at levels almost identical to those of children without a history of behavior problems.

Mr. Pianta's research also has shown that even within schools or preschool centers, classroom quality varies tremendously, however. Similarly, Mr. Pianta said, even if states or local programs meet minimum benchmarks, the actual environment can be inconsistent across classrooms.

"Once you have those things in place, you still have a long way to go," he said.

CLASS is also being used across the country to train preschool teachers with varying levels of education on how to be more effective in the classroom.

Caution Raised

Mr. Barnett, of NIEER, said its 10 benchmarks are only meant to "set minimums or floors on what programs must do and the human resources they have to do it with."

"None of these [benchmarks] are expected to have direct effects on a child's learning and development," he said.

The requirement for certain health screenings, for example, is intended for children who would not otherwise have the chance to see a doctor.

"Although it is very important for those few children, no one would expect to find an effect on test scores in a study like this one," Mr. Barnett said.

He added that some of the NIEER benchmarks were described differently in the University of Virginia study from the way NIEER explains them, and that two that could have the most influence on teaching practices—state monitoring and professional development—were left out.

Mr. Pianta agreed that state monitoring and professional development are important, but said that they are also “the toughest to get right.” Simply requiring a certain number of hours of in-service training might not be very helpful if the training is not focused on interactions with students, he said.

Changes in State Policy

In recent years, state policymakers have responded to the message from preschool experts that high-quality programs are necessary to see lasting benefits for children throughout their school years and beyond.

The 2007 NIEER State Preschool Yearbook noted recent efforts by states to meet more of those benchmarks. The number of states meeting fewer than five indicators fell to eight last year, from 19 in 2003, and among those eight, Arizona, Kansas, and Maine have changes in the works.

North Carolina’s More at Four program and Alabama’s preschool program met all 10 of the benchmarks. Another eight states have state-funded programs that meet nine of the 10.

But Mr. Pianta added that the use of classroom observation and attention to “what teachers do with kids” is also increasing.

In a **press release**, Andrew J. Mashburn, the lead author of the study and a senior research scientist at the University of Virginia’s Center for Advanced Study of Teaching and Learning, said the results “provide compelling evidence that young children’s learning in pre-K occurs in large part through high-quality emotional and instructional interactions with teachers.”

Researchers from the University of California, Los Angeles, and the University of North Carolina at Chapel Hill also worked on the study.