



Teacher Preparation and Teacher-Child Interaction in Preschools

Susan Kontos and Amanda Wilcox-Herzog

The quality of the interactions between teachers and young children has long been a topic of discussion among early childhood educators and others concerned with young children's development. It is generally agreed that because so much basic early learning (e.g., language, social competence) occurs through interactive experiences when children are very young, the quality of teacher-child interactions contributes substantially to effects that early group care and preschool education have on children (Bowman, Donovan, & Burns, 2001). Many early childhood teachers enter the field with little education beyond high school and minimal specialized education in child development or early childhood education. Researchers have therefore wondered whether the general level of education, specialized training in early childhood development and education, or both, are related to the quality of teachers' interactions with young children. Many states allow teachers to do their work with little if any specialized education (Phillips, Lande, & Goldberg, 1990). Thus, it is important to know if specialized education in early childhood education is related to teachers' effectiveness on the job. This Digest discusses the research on general and specialized education as factors in teachers' interactions with children. The term *teacher* is used here to refer to teachers and caregivers for the sake of simplicity.

General Education and Teacher-Child Interaction

A well-known study conducted by Berk (1985) focused on the relationship between teacher education and teacher behavior toward children in child care settings. She found that teachers with college degrees were more likely than those without a degree to encourage children, make suggestions to them, and promote their verbal skills.

Another well-known study, the National Day Care Study (Ruopp et al., 1979), demonstrated that caregiver education was positively associated with the amount of social interaction, cognitive/language stimulation, and conversation with children. The National Child Care Staffing Study (Whitebook, Howes, & Phillips, 1990), a large, multisite study, found that education was the caregiver background variable that best predicted caregiver behavior (sensitivity, harshness, detachment). On the other hand, a large, multisite study of infant/toddler care (NICHD Early Child Care Research Network [ECCRN], 1996) found no relationship between teachers' education and frequency or ratings of positive caregiving.

A study by Kontos et al. (1995) demonstrated similar relationships between interactions and formal education for family child care providers and for teachers in centers. In this study, level of formal schooling was significantly positively related to observer ratings of provider sensitivity and observations of responsive involvement with children, but negatively related to observer ratings of detachment and to providers' self-ratings of restrictiveness.

Some other recent studies found mixed results, partly because they measured teacher behavior in different ways and partly because the programs studied had different characteristics.

Specialized Education and Teacher-Child Interactions

Several studies have examined the relationship between teachers' behaviors with children and their specialized education. A follow-up analysis of National Child Care Staffing Study data (Howes, Whitebook, & Phillips, 1992) indicated that specialized education at the college level was important for teachers' competent interactions with infants and toddlers (as measured by the appropriate caregiving subscale of the Infant-Toddler Environmental Rating Scale (ITERS)), in contrast to preschool teachers who seemed to do well with a college degree in *any* subject or specialized education at the college level. Howes (1983) demonstrated that center-based caregivers with more specialized education played more with children and were less restrictive. In addition, family child care providers with more specialized education also played more with children and showed more responsiveness—results consistent with those reported by Kontos and colleagues (1995).

Arnett (1989) observed the behavior of 159 child care teachers in Bermuda with four different levels of specialized education ranging from no training to extensive training (a college degree in early childhood education). Results demonstrated that teachers with degrees showed more warmth and were less punitive and detached in their interactions with children than teachers in the other three groups. Teachers with mid-range training in child development were more positive and less punitive and detached than teachers with no training. Thus, Arnett demonstrated that some specialized education is good for the quality of teachers' interactions with children, but that more is even better.

Several studies failed to show a relationship between specialized education and teachers' interactions with children. Cassidy and Buell (1996) reported that, in spite of increased Early Childhood Environmental Rating Scale (ECERS) scores following specialized education, there was no change in the amount of responsive language used by teachers. In other words, the coursework appears to have influenced overall classroom quality but not the quality of teachers' verbalizations with children. Family-to-Family training (training developed by a partnership of community organizations and family child care providers) did not change the sensitivity or responsiveness of the providers' interactions with the children, although quality was enhanced (Kontos, Howes, & Galinsky, 1996). Thus, results regarding the association between specialized education and teachers' interactions with children are mixed in studies using quasi-experimental designs.

One problem with research examining the effects or correlates of teacher education and specialized education in early childhood education is that the two factors tend to be intertwined. Teachers with more formal education were also more likely to have more specialized education. Berk (1985),

for instance, demonstrated differences in teachers' interactions with children between teachers with specialized education and those with high school diplomas (in favor of the former), but she was unable to show that specialized education was superior to a degree in an unrelated field.

Another problem is that the amount of formal and specialized education tends to be calculated as continuous variables (that is, actual years of education) rather than categorized into groups such as teachers with a high school diploma, teachers with a bachelor's degree, and so on. As a result, although these studies investigate relationships between teachers' education and other variables, they cannot be used as a source of policy-relevant information regarding which category of education (formal or specialized) makes a significant difference to practice.

Howes (1997) conducted a study that attempted to address both of these two research problems. Using data from two large investigations of child care, Howes classified teachers into five categories by crossing categories of formal education with categories of specialized education and including in the study only teachers who fit into those categories. These categories were high school diploma with workshops, Child Development Associate (CDA) training, some college with some early childhood education courses, associate's degree (AA) in early childhood, and an undergraduate or graduate degree in early childhood. Groups were compared for teacher sensitivity (Arnett, 1989) and involvement (Howes & Stewart, 1987). Results from both studies indicated that teachers with bachelor's degrees in early childhood education or higher were the most sensitive and involved teachers compared to all other groups. Teachers with AA degrees and CDA credentials were more sensitive and involved than teachers with some college or high school plus workshops, however. These data suggest that coherent teacher preparation programs (regardless of length or cost) are more effective in preparing teachers than are ad hoc educational experiences.

One study reported results contrary to the studies above. The National Institute of Child Health and Human Development (NICHD/ECCRN, 1996) study of early child care examined predictors of positive caregiving in settings with infants and toddlers. The NICHD/ECCRN study found that specialized education was more important for work with preschoolers than with infants and toddlers. Specialized education was not among the statistically significant predictors of positive caregiving for that age group. Instead, positive caregiving was predicted by the size of the group and child-to-adult ratio.

Conclusion

There is considerable evidence that specialized training is related to the quality of teachers' interactions with children. Two studies (Cassidy et al., 1995; Kontos, Howes, & Galinsky, 1996) used quasi-experimental designs that suggest causality between specialized education and practice. These two studies support the idea that global indicators of quality may change somewhat (at least statistically, if not observably), but that observations of teachers' interactions with children revealed no change as a function of specialized education. It may be that researchers are not observing the kinds of behaviors that are likely to change as a function of specialized education. Two studies (Howes, Whitebook, & Phillips, 1992; NICHD/ECCRN, 1996) found different results for infants/toddlers compared to preschoolers. Howes found specialized education most important for work with infants, whereas the NICHD/ECCRN study found specialized education more important for work with preschoolers. More specific research is needed on teacher-child interactions to clarify existing studies.

For More Information

- Arnett, J. (1989). Caregivers in day-care centers: Does training matter? *Journal of Applied Developmental Psychology*, 10(4), 541-552.
- Berk, L. (1985). Relationship of caregiver education to child-oriented attitudes, job satisfaction, and behaviors toward children. *Child Care Quarterly*, 14(2), 103-129.
- Bowman, B. T., Donovan, M. S., & Burns, M. S. (Eds.). (2001). *Eager to learn: Educating our preschoolers*. Washington, DC: Committee on Early Childhood Pedagogy, National Research Council. ED 447 963.
- Cassidy, D. J., & Buell, M. J. (1996). Accentuating the positive? An analysis of teacher verbalizations with young children. *Child and Youth Care Forum*, 25(6), 403-414.
- Cassidy, D. J., Buell, M. J., Pugh-Hoese, S., & Russell, S. (1995). The effect of education on child care teachers' beliefs and classroom quality: Year one evaluation of the TEACH early childhood associate degree scholarship program. *Early Childhood Research Quarterly*, 10(2), 171-183. EJ 508 860.
- Howes, C. (1983). Caregiver behavior in center and family day care. *Journal of Applied Developmental Psychology*, 4(1), 99-107.
- Howes, C. (1997). Children's experiences in center-based child care as a function of teacher background and adult:child ratio. *Merrill-Palmer Quarterly*, 43(3), 404-425. EJ 554 324.
- Howes, C., & Stewart, P. (1987). Child's play with adults, toys, and peers: An examination of family and child-care influences. *Developmental Psychology*, 23(3), 423-430. EJ 355 917.
- Howes, C., Whitebook, M., & Phillips, D. (1992). Teacher characteristics and effective teaching in child care: Findings from the National Child Care Staffing Study. *Child and Youth Care Forum*, 21(6), 399-414.
- Kontos, S., Howes, C., & Galinsky, E. (1996). Does training make a difference to quality in family child care? *Early Childhood Research Quarterly*, 11(4), 427-445. EJ 550 957.
- Kontos, S., Howes, C., Shinn, M., & Galinsky, E. (1995). *Quality in family child care and relative care*. New York: Teachers College Press. ED 390 536.
- NICHD Early Child Care Research Network (ECCRN). (1996). Characteristics of infant child care: Factors contributing to positive caregiving. *Early Childhood Research Quarterly*, 11(3), 269-306. EJ 534 662.
- Phillips, D., Lande, J., & Goldberg, M. (1990). The state of child care regulation: A comparative analysis. *Early Childhood Research Quarterly*, 5(2), 151-179. EJ 413 816.
- Ruopp, R., Travers, J., Glantz, F., & Coelen, C. (1979). *Children at the center: Final report of the National Day Care Study*. Cambridge, MA: Abt Associates. ED 168 733.
- Whitebook, M., Howes, C., & Phillips, D. (1990). *Who cares? Child care teachers and the quality of care in America. Final report of the National Child Care Staffing Study*. Oakland, CA: Child Care Employee Project. ED 323 031.

References identified with an ED (ERIC document), EJ (ERIC journal), or PS number are cited in the ERIC database. Most documents are available in ERIC microfiche collections at more than 1,000 locations worldwide (see <http://www.ed.gov/Programs/EROD/>). They can also be ordered through EDRS: 800-443-ERIC or online at <http://www.edrs.com/Webstore/Express.cfm>. Journal articles are available from the original journal, interlibrary loan services, or article reproduction clearinghouses such as Ingenta (800-296-2221).

ERIC Digests are in the public domain and may be freely reproduced.
This project has been funded at least in part with Federal funds from the U.S. Department of Education, Office of Educational Research and Improvement, under contract number ED-99-CO-0020. The content of this publication does not necessarily reflect the views or policies of the U.S. Department of Education, nor does mention of trade names, commercial products, or organizations imply endorsement by the U.S. Government.