No Child Left Behind Comes to Preschool

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Abstract

In this article I examine recent policy initiatives related to early childhood education that can be traced either directly to No Child Left Behind (NCLB) or to the emphasis on standards and accountability that produced NCLB, including the development of standards and assessments and moving the birth date for kindergarten eligibility to require children to be older when they enter school. I also discuss instructional and assessment issues that need to be considered if new pressures to teach academic skills in preschool benefit rather than do harm to young children.

No Child Left Behind (NCLB) testing begins at third grade. The effects of the legislation are beginning to be felt in preschools because policy makers believe that an early start on developing academic skills will help children reach the standards they are expected to achieve in elementary school. They hope also that an early introduction to academics will reduce the gap in achievement between children from economically disadvantaged and more advantaged homes. Preschool teachers are accordingly being pressured to begin teaching children the basic academic skills that are assessed under NCLB.

There are good reasons to promote academic skill development in early childhood, especially for children who live in poverty. Children from low-income families begin school, on average, over a year behind their middle-class peers in basic academic competencies (Stipek & Ryan, 1997; Zill & West, 2001). The gap puts them at a disadvantage that few overcome; skills at school entry are highly predictive of academic performance through high school (see Stipek, 2001, for a review). The authors of one meta-analysis

estimated that about half of the total black-white math and reading gap at the end of high school is explained by the gap between blacks and whites at school entry (Phillips, Crouse, & Ralph, 1998).

Moreover, there is ample evidence now that quality preschool experiences have long-term academic benefits for children, including reducing rates of retention and special education placement (see Barnett, 1995; Farran, 2000). Studies have demonstrated that children can benefit from preschool and that the benefits can be sustained. The achievement gap at school entry combined with evidence that it could be reduced by high-quality preschool experiences are two good reasons for attending more to children's educational opportunities before they enter kindergarten.

The pressure NCLB has put on preschool educators to teach academic skills could stimulate constructive practices that will increase all children's academic performance and especially economically disadvantaged and nonwhite children's success in school. It also has the potential of doing more harm than good by promoting educational practices that undermine children's enthusiasm for learning and, as a result, negatively affect their ultimate academic performance.[1] It could also do harm by reducing attention to other intellectual abilities that are not typically tested under NCLB, such as the development of critical, analytic, and creative thinking and reasoning skills. Finally, critics fear that a greater emphasis on academic skills in preschool would come at the cost of attention to nonacademic dimensions of development that are critical for success in life as well as in school, including social competence, behavioral self-regulation, and physical and emotional well-being.

I examine in this article recent policy initiatives related to early childhood education that can be traced either directly to NCLB or to the general emphasis on standards and accountability that produced NCLB. I also discuss instructional and assessment issues that need to be considered if the new pressure on academic skills is to benefit rather than do harm to young children.

The Policy Context

At both the federal and state level, there are changes in policies that could have profound effects on preschool education. I discuss two examples below: developing standards and accountability for preschool programs and increasing the age at which children are eligible to enter kindergarten.

Standards Come to Preschool

The federal initiative, Good Start Grow Smart, has had substantial effects on states. It calls for states to develop early learning standards for children ages 3–5 in language, literacy, and mathematics that are aligned with their K–12 standards. Previous to this initiative, fewer than half the states had preschool standards (Neuman & Roskos, 2005). Now nearly all states have developed standards and those that have not are in the process of doing so. There is also language in the Head Start reauthorization bill that emphasizes academic skills and recommends alignment of Head Start standards with K–12 standards.

Clearly articulated standards could provide direction and coherence to early childhood education. But some of the same concerns that have been expressed about K–12 standards apply, perhaps even more significantly, to preschool. Critics complain that the problems of overly narrow standards in K–12 are simply being pushed down to apply to younger children, where they may be even more inappropriate and do greater damage.

Most early childhood experts endorse instruction that is adapted to children's individual skills and interests. Some fear that expectations about what children should know and be able to do at specific ages will encourage instruction that is not responsive to the individual needs of children, or that some children who fail to meet standards will be seen as failures and become victims

of low expectations and tracking, which have been shown to limit learning in school (Weinstein, Gregory, & Strambler, 2004). Standards are also often created in the form of laundry lists of skills, which some experts are concerned will lead to fragmented teaching of isolated skills that are not meaningful or motivating for children.

Literacy experts, for example, point out that, although children need to develop the decoding skills (phonological awareness, alphabetic principle, repertoire of automatically recognized words) that are typically emphasized in standards, children's language, conceptual and cultural knowledge, vocabulary, and verbal reasoning abilities are just as important as decoding to reading success. These skills are interdependent, and they are best learned in the context of meaningful text (Neuman & Roskos, 2005). Children also need to learn to make connections between the text they are reading or hearing read to them and their own experience and previous texts. Standards need to include all of these aspects of reading, and interpreters of standards need to understand that each is not developed in isolation of others.

The same is true for math. Consider a typical standard: children can count to 20. Many children learn to count to 20 by rote without knowing what a 7 is, or that 8 is one more than 7, and 6 is one less. Counting is only meaningful if children also understand one-to-one correspondence between objects and numbers and that the last number when counting refers to how many items are counted. Standards that do not articulate these other understandings could lead to mindless instruction, such as rote counting. Also included in early mathematical learning is an understanding of shapes, measurement (such as mass, length, and weight), comparisons, ordering, patterns, classifying, and organizing and representing objects (Clements, Sarama, & DiBiase, 2004). These varied and interdependent components of mathematics all need to be included in standards and taught in contexts that are meaningful to young children.

State standards need also to include the many social and affective dimensions of children's development that affect their academic success and their lives. Recent studies have demonstrated the value of a positive social context in classrooms for promoting academic achievement (Hamre & Pianta, 2005). Moreover, children's social skills predict their learning as well as affect their relationships with peers and adults in school (Arnold, 1997; Miles & Stipek, 2006; National Institute of Child Health and Human Development–Early Child Care Research Network, 2004). There is also compelling evidence that emotional adjustment and self-regulation at school entry are strong predictors of children's academic performance in school, over and above their academic skills at school entry (see Raver, 2002, for a review). If the standards are designed to influence the content and focus of preschool programs, they need to include all aspects of development that research indicates are important. In brief, clear standards for student learning can be valuable, but only if the standards are well informed by knowledge about how young children learn and the many dimensions of development that contribute to children's success in and out of school.

Accountability

Hints of accountability coming to early childhood education are just beginning—standards with teeth. States are increasingly mandating assessments of preschool programs to track the progress of children and programs (Rothman, 2005). The Head Start Bureau has created a test, the National Reporting System (NRS), to assess literacy and math skills. The test, which is supposed to be given to nearly every 4- and 5-year-old enrolled in Head Start, has been highly criticized for its narrowness and inappropriateness for young children (Government Accountability Office, 2005). And although there are currently no negative conse-

quences to a program if children perform poorly, critics have expressed concern that the NRS, or something like it, might be used in the future to hold programs accountable in the same way that K–12 schools are held accountable for their students' performance on achievement tests.

Experience with NCLB has shown that the test used for accountability makes all the difference. In addition to time being spent preparing specifically for the test, *what* is taught is affected by the topics covered on the test and *how* it is taught is affected by the nature of the test. There is already evidence that this applies to preschool as well. In a recent study of the National Reporting System, mentioned above, many of the Head Start grantees interviewed claimed that they changed instruction after their children were given the NRS, even though there were no consequences for the children or the program based on the children's performance (Government Accountability Office, 2005). Tests designed only for monitoring or informational purposes may influence instruction and thus need to be considered carefully. High-stakes tests will have all the more influence.

Previous evidence from NCLB suggests that if the test used to assess early childhood programs focuses on isolated skills, children are likely to be taught isolated skills. For example, if vocabulary words are presented without any context, teachers are likely to teach vocabulary words out of context (e.g., word of the day). If children are asked in the test to count to 20, they will be taught to count to 20, not necessarily to understand what 20 means. If the test does not assess communication skills, comprehension, metacognitive skills, problem-solving ability, reasoning, self-regulation, or the ability to collaborate and get along with peers, these are not likely to be emphasized in the instructional program. Also, if assessment of programs does not include observations or other strategies for evaluating the social-emotional climate and efforts to teach children good physical habits or social skills, then these important qualities of preschool education are likely to receive less attention.

The instrument used to monitor or assess programs needs to be carefully developed to map on to the competencies, dispositions, and social-emotional skills that we know children need to succeed in school and in life. If we scrimp on the test, we will scrimp on the program. As a result we could end up promoting early childhood education that does not meet our goals for improving important academic skills and that shortchanges children on opportunities to develop in other important dimensions that affect their life chances.

Age of School Entry

Another state policy shift associated with the new emphasis on K–12 accountability and NCLB is a trend toward moving the kindergarten cutoff date up, so that children enter kindergarten older, on average (Stipek, 2002a). Since 2000 the Rhode Island General Assembly moved the date of enrollment eligibility from December 31 to September 1; Ohio revised its code to permit school districts to move the date from September 30 to August 1; Hawaii moved its age of eligibility date from December 31 to August 1; and Maryland, from December 31 to September 30.

It is clear from materials related to such legislative proposals that concerns about achievement test scores and a belief that requiring children to be slightly older when they enter school have played a role. A 1999 California bill (AB 25: Article 1.5, 48005.10), for example, refers specifically to increased academic demands of kindergarten and concerns about comparisons between California pupils and pupils in states where children are required to be older than in California to enter kindergarten.

If policies requiring children to be older at kindergarten entry are coupled with universal access to quality preschool, they may not have negative consequences. But with-

out this, requiring children to be older when they enter kindergarten is likely to exacerbate the achievement gap because children from low-income families, especially working-class children who are not eligible for federal or state subsidized early childhood education, are less likely to attend a quality preschool while they are "waiting" to be admitted to kindergarten. Although children make some cognitive gains out of school, previous research indicates that children make greater cognitive gains in school than out of school (Stipek, 2002a). Delaying entry into kindergarten therefore means that economically disadvantaged children have longer to fall behind their middle-class peers.

Program Effects

The new emphasis on standards and accountability and the concomitant pressure on preschool teachers to teach basic academic skills will undoubtedly affect curriculum and instruction in U.S. preschools. Experts in the early childhood education community have expressed concerns similar to those expressed about the effects of NCLB on curriculum and instruction in K–12. For example, many educators and researchers have argued that NCLB forces attention to too narrow a set of academic skills. Reading and math are important, to be sure, but do we really want to see writing, social studies, and science pushed aside to give more time for the two subjects for which schools are being held accountable? And even within the domains of reading and math, the multiple-choice tests that most children are being prepared to take promote instruction that fails to develop the critical and creative thinking and reasoning skills children will need in a global society, where access to constantly changing information (and misinformation) abounds (Resnick, 2001). Critics complain that in addition to narrowing the academic curriculum, NCLB has resulted in the neglect of other important domains of development. They worry that children are not, for example, learning to cooperate with others; to plan, organize, and complete multidimensional, long-term tasks; to enjoy and participate in the arts; and to develop healthy physical habits and athletic skills.

These concerns may be heightened for very young children. The notion of holding young children to academic standards is new, and preschool-aged children are not accustomed to the formal instruction that current standards are likely to foster. Moreover, their perceptions of school and of themselves as learners are just forming; formal instruction introduced too early, or that is too hard or uninteresting, could turn young children off to schooling before they even get started and thus handicap their academic development throughout their school years. And, as mentioned above, social-emotional development and nonacademic skills at school entry predict school performance. Even if academic success in school was the only concern, previous research strongly suggests the importance of attending to many dimensions of children's development in preschool.

Negative effects of early academic instruction are not inevitable. For many years children have been entering kindergarten with an array of cognitive skills and understandings that most achieved without losing their motivation to learn. We also know many strategies for helping young children develop social skills and emotional self-regulation. By exploiting what is known about the contexts that promote positive developmental outcomes for children, researchers and educators should be able to develop preschool programs that do the same.

The Teaching Approach Matters

For several decades there has been a lively debate between those who advocate highly structured, teacher-directed, and often scripted instruction and those who endorse an instructional approach that involves more child choice and initiative and substantial use of materials that children

manipulate directly. The two approaches have roots in different theories of learning—the former in learning theory, which emphasizes the reinforcement of correct answers, the latter in constructivist theories, in which children are assumed to construct their understandings through direct experiences.

During the 1970s a number of studies examined the effects of various instructional models on children's learning and other outcomes. DISTAR is a good example of a teacher-directed, paced, didactic approach, with children responding as a group and teachers using a substantial amount of reinforcement. High Scope is the prototypical constructivist program; it is individualized, and teachers serve as facilitators of children's learning more than as direct instructors.

Studies comparing these different kinds of instructional programs suggest that highly structured, teacher-directed approaches sometimes show short-term academic benefits, but in the long run, more child-centered approaches appear to promote more sustained positive effects in both academic and social domains (Goldbeck, 2001). Perhaps the best known of these studies is one that compared DISTAR and High Scope. Following participants into adulthood, the study found that the more child-centered High Scope approach showed such benefits over DISTAR as lower rates of delinquency, higher participation in sports, and a greater likelihood of reading a book in the last week (Schweinhart, Weikart, & Larner, 1986a, 1986b).

Studies of the effects of academic instruction also support concerns that have been raised about the effects of teacher-directed, highly structured instruction on young children's motivation. Studies of preschoolers and kindergartners show that highly academic, performance-oriented instruction (e.g., focused on right answers) is associated with lower perceptions of competence and expectations for success, avoidance of challenging tasks, less pride in achievement, more dependency on adults for direction and evaluation, and higher anxiety (Burts, Hart, Charlesworth, & Kirk, 1990; Burts et al., 1992; Stipek & Daniels, 1988; Stipek, Feiler, Daniels, & Milburn, 1995; Stipek et al., 1998). It may also prevent children from developing self-regulation and adaptive learning skills—the ability to initiate and modify tasks, to respond flexibly, and to assume some control over their learning (Rohrkemper & Corno, 1988).

The debate goes on, but in some respects it rests on a false dichotomy. Experts who have promoted child-centered, constructivist approaches may have been more resistant to teacher direction and instruction than they needed to be. Descriptions of "developmentally appropriate practice" have, until fairly recently, given little attention to the teaching of literacy, math, science, and other academic skills. They have instead focused more on the social-emotional climate. Just as educators and researchers need to be wary of highly structured, teacher-directed programs, they need to make sure that teachers are, in fact, teaching. Young children should not be left to their own devices—to explore aimlessly or to invent while the teacher observes. To the contrary, effective and motivating teaching requires a great deal of active teacher involvement. Teachers need to have clear learning goals, plan activities carefully to achieve those goals, assess children's learning regularly, and make modifications when activities are not helping children learn. Good teachers are busy asking questions, focusing children's attention, helping them document and interpret what they see, and providing scaffolds and suggestions.

The kind of instruction that is most effective and most motivating for children embeds the teaching of basic skills into activities that are meaningful and fun for young children. Letters can be learned, for example, by calling attention to particular letters while reading a story to children and by teaching children rhyming games. Language and vocabulary can be developed in

the context of meaningful conversations about topics that interest children. Mathematics as well as literacy can be embedded into pretend play, such as creating a post office, store, or restaurant.

Teachers can differentiate instruction by varying demands and providing different levels of support, depending on the skill levels of particular children. Whereas the teacher may suggest to one child that she draw pictures for the menu she is creating, another child may be encouraged to write words using inventive spelling. The amount of help given can vary, for example, from having a child dictate a sentence for the teacher to write, to the teacher helping a child with a word or two in a sentence the child is writing. Some children can be given math activities that involve single numbers under 10; others can be asked to count by 2's, 5's, and 10's. Effective teaching cannot be delivered through a one-size-fits-all or scripted program because teachers need to be responsive to their children's individual skills and interests.

A clear articulation of effective strategies for teaching academic skills to young children will require closer connections between early childhood experts and subject-matter specialists. Heretofore they have traveled in different professional circles. Consequently, the experts who contribute most to thinking about preschool practice have not been well informed by knowledge about how children develop academic skills in reading or math (or any other subject). What is needed are close collaborations between subject-matter specialists—people who study how young children learn literacy skills and mathematical and science concepts—and those who study and influence early childhood education practice.

Happily, such collaborations are beginning, and a number of recent reports discuss the implications of research on children's literacy and math development for early childhood education (e.g., Burns, Griffin, & Snow, 1999; Clements et al., 2004; National Reading Panel, 2000). These documents make clear the complexity and interconnectedness of the literacy and mathematics skills young children can learn, and they provide good suggestions for motivating approaches for teaching these skills.

But educators cannot stop with reading and math skills. To prepare children for the complex global society they will live in, with constantly changing information, they need to learn to ask questions, not just to answer them. They need to learn to critically analyze and solve novel problems that do not look exactly like those they encounter in school and on tests. The instructional program needs to address all of these intellectual areas.

Looking beyond the cognitive domain, children need to develop dispositions and behaviors to get along in and out of school. Below I propose that other dimensions of development do not need to be sacrificed in efforts to develop children's intellectual skills.

It's Not a Zero-Sum Game

Teaching children literacy and math and other academic skills does not need to reduce attention to other important dimensions of development. Social skills, for example, can be taught in the context of classroom routines and activities designed to teach academics. Stories that are read to and discussed with children can contain lessons about appropriate social behavior. Children can learn to collaborate doing group activities designed to teach literacy, math, science, and other skills. They can develop social problem-solving skills by being encouraged and helped to work out conflicts and disagreements with peers.

Preschool can even help children develop healthy habits—such as teeth brushing, hand washing, and exercise—that will contribute to their general well-being, without taking time away from academic learning. Teachers can model healthy eating by providing healthy snacks. They can talk to children about how exercise affects their bodies in the context of a science lesson on

physiology (what makes our blood flow through our bodies?). Science experiments, such as observing what happens to two pieces of bread several days after one piece was touched with a dirty hand and the other with a clean one, can vividly illustrate the importance of hand washing.

There is no reason why teaching academic skills needs to undermine young children's positive dispositions for learning. Children's beliefs about their competencies, their expectations for success, and their enjoyment of learning depend on the nature and difficulty of the tasks they are asked to complete and the nature of evaluation and the feedback they receive (see Stipek, 2002b). Children's self-confidence is maintained by working on tasks that are difficult enough to give them a sense of accomplishment and satisfaction but are not too difficult for them to complete. The variability in children's skill levels is why rigidly paced instruction is inappropriate; if all children are asked to do the same task it will invariably be too easy for some students and too difficult for others and thus either boring or frustrating for many children. By implementing what is known about tasks and instruction that are motivating for young children, teachers can avoid negative effects of teaching basic academic skills.

The classroom climate is also important. For example, self-confidence is engendered better in classrooms in which all children's academic achievements are celebrated than in classrooms in which only the best performance is praised, rewarded, or displayed on bulletin boards. Teachers can promote enthusiasm and positive work habits by encouraging and praising children for taking on challenges and persisting when they run into difficulty and ensuring that there are no negative consequences for failure.

The nature of evaluation also matters. Evaluation that tells children what they have learned and mastered and what they need to do next, rather than how their performance compares to other children, fosters self-confidence and high expectations. All children can learn and will stay motivated if they see their skills developing; only a few can perform better than their classmates. Many children will become discouraged if they need to compete for rewards; others will become lazy if they achieve recognition without much effort.

A feeling of self-determination (I am doing this because I want to, not because I have to) is a key factor in enjoyment and can easily be fostered in the context of learning basic skills. Clearly children cannot be given carte blanche to engage in any activity they want and at the same time be expected to master a set of skills and understandings determined by adults to be important. But they can be given choices within a constrained set of alternatives—in what they do and how and when they do it.

Social-emotional well-being can be promoted in students by paying close attention to their social and emotional needs and creating a socially supportive environment. A respectful and caring social context that ensures close, personal relationships with adults and peers, that is orderly and predictable, that promotes feelings of self-determination and autonomy in students, and in which bullying and aggressive behavior are not tolerated can contribute substantially to students' emotional development.

In summary, substantial knowledge exists about how young children learn academic skills that educators can use to create instruction that does not undermine motivation. And young children's development on other dimensions can be promoted in the context of preparing them academically. The question is not whether to teach young children, but how to teach them. How educators teach and evaluate children, and the social climate of preschool classrooms, can make all the difference in their learning and well-being.

Moving Forward

Never before has there been such widespread recognition of the potential value of

early childhood education. Never before has there been so much pressure to make it more academic. The pressure could encourage the development of preschool programs that will give children who are currently beginning school with relatively low academic skills a better chance to succeed. Or, it could promote programs that do not have sustained positive effects on children's achievement, that undermine their self-confidence and enthusiasm for learning, and that fail to help them develop the social-emotional and other skills they need to be successful in their lives—all before children even begin school.

To achieve the former and avoid the latter, we need to make sure that the standards developed for early childhood reflect the complexity and interdependence of the skills they need to learn and that they include all of the dimensions of children's development that contribute to their well-being as well as their academic success. Second, the assessments we develop for accountability and other purposes need to be aligned with all, not just some, of the standards.

Third, we need to invest in the training of preschool teachers, both preservice and through ongoing professional development. The kind of instruction that will promote the ambitious achievement to which we aspire, while maintaining children's enthusiasm for learning, is difficult. It cannot be scripted and at the same time be responsive to individual children's skills and interests. It requires a deep knowledge of the subject matters taught, effectiveness in assessing children's individual skills and interests, and the ability to plan instructional activities that are fun and engaging for young children. In many preschool contexts, teachers also need to know about children's culture and language, to be able to develop relationships with and involve parents who have different backgrounds from their own. And if we want to retain teachers who have these skills, we need to treat them like the professionals they are rather than hand them a script and demand adherence.

Finally, we need to pay preschool teachers at a level that reflects the expertise needed for such an important and demanding job. We cannot realistically expect to bring qualified individuals into a field that requires considerable training and responsibility but pays less, on average, than what janitors are paid (Barnett, 2003). Without all of this, the effects of No Child Left Behind, and standards and accountability more generally, on preschool could end up doing children serious harm.

Notes

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1. Many studies have shown that most children begin school self-confident and eager to learn. Motivation declines, on average, as children progress through elementary school (Harter, 1981; Stipek & Mac Iver, 1989; Wigfield, et al., 1997; see Stipek, 2002b).

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