Indicator: Students with disabilities are provided with and taught effective ways to use assistive technology to support their individual learning needs. (5175)

Evidence Review:

In many schools that fail to reach AYP, there is a profound disconnect between the school and it customers - parents and members of the larger community. Indeed, the legitimization of customer voice is deeply woven into NCLB restructuring options. Many highly successful schools, in turn, have high levels of parental involvement and support. Although almost all forms of parental involvement and support have been shown to have some positive effects on student achievement, the most effective type is that which focuses attention on the primary mission of educating students, that is, in which parents support at school and at home the academic activities that are occurring in the classroom. In addition to improved academic performance, parent interest has been linked to increased political support and maintenance of legitimacy in the larger environment surrounding the school. Specific activities in the area of home-school relations that have been attributed to instructional leaders include: communicating with parents on a regular basis, including informing parents of programs and activities; obtaining human resources for both regular and extracurricular programs; establishing programs that promote contact between teachers and parents; interacting personally to promote the school to important community groups; providing educational activities and other programs for parents to learn about the curriculum used to teach their children; and developing systems that parents can use to work with their children at home on the academic skills being stressed in the school program. Source: Joseph Murphy, Handbook on Restructuring and Substantial School Improvement

Evidence Review:

In their first 18 years of life, youngsters are in school only eight percent of their total number of hours. The years outside school, particularly the early years, have profound, pervasive, and lasting effects on their learning. It is difficult to overcome cognitive deprivation and the loss of academic stimulation at home before and during the school years. Children from low-income families particularly benefit from early childhood language enrichment. Poor children tend to have reduced depth and breadth in their vocabulary. In addition to encouraging and supervising homework and reducing television viewing, parents can improve academic conditions in the home. Sizable proportions of young children, especially those in poverty, are behind in language and other skills before they begin school. These children often end up in bilingual and special education programs for the "developmentally challenged" in which they are segregated from other children, and they make poor progress. The origins of their achievement problems can partially be attributed to ineffective programs; however, there are specific parental behaviors observed even before the child begins school that substantially affect a child's reading and other language skills in later school-age years.

Children first develop vocabulary and comprehension skills by listening, particularly to their parents before they begin school. As they gain experience with written language between the first and seventh grades, their reading ability gradually rises to the level of their listening ability. Highly skilled listeners in kindergarten make faster reading progress in the later grades, which leads to a growing ability gap between initially skilled and unskilled readers.

This growing gap in reading skill levels reflects inequalities in socioeconomic status and child-rearing practices. These differences stem from early childhood experience, especially with

respect to parent behaviors that motivate children. Studies show that middle-class parents are more likely to hold high expectations for their children's achievement and to be more often engaged with them in promoting it.

Home observations and interviews with parents reveal further differences associated with higher achievement in reading correlated with parental socioeconomic status, such as the parent responsiveness and involvement with the child, kinds of discipline employed, household organization, and providing appropriate play materials. Parent behaviors such as these cause huge and growing gaps in preparation for school and learning to read between children in poverty and those in middle-class homes.

One study reported findings from recordings of preschool children's vocabulary growth during free play. Though vocabulary differences were tiny at 12 to 14 months of age, by age 3, sharp differences emerged, correlated with parents' socioeconomic status. Welfare children had vocabularies of about 500 words, middle/lower SES children about 700, and higher SES children had vocabularies of about 1,100 words, more than twice that of welfare children.

Parents of higher socioeconomic status spent more minutes per hour interacting with their children and spoke to them more frequently. On average, higher SES parents spoke about 2,000 words per hour to their children; welfare parents, only about 500. By age 4, "an average child in a professional family would have accumulated experience with almost 45 million words, an average child in a working-class family would have accumulated experience with 26 million words, and an average child in a welfare family with 13 million words" (Hart & Risley, p. 198). Parents of higher socioeconomic status, moreover, used "more different words, more multi-clause sentences, more past and future verb tenses, more declaratives, and more questions of all kinds. The professional parents also gave their children more affirmative feedback and responded to them more often each hour they were together" (Hart & Risley, 1995, pp. 123-124). By age 4, children of professionally employed parents are encouraged with positive feedback 750,000 times, about 6 times as often as children of welfare parents. The welfare parents, on the other hand, had discouraged their children with negative feedback about 275,000 times, about 2.2 times the amount employed by higher income parents. Such parenting behaviors predicted about 60 percent of the variation in vocabulary growth and use by 3-year-olds.

Entwisle and Alexander (1993) concluded that differences in exposure to vocabulary and elaborate use of language compound at ages 5 and 6, when children from low-income families enter school. Not only do children from lower income families lack vocabulary and other skills, but they must accommodate to educational institutions with "middle-class" norms and values. In their words:

Many minority and disadvantaged children cross the first-grade threshold lacking competencies and habits of conduct that are required by the school...The conventions of the school, with its achievement orientation, its expectation that children will stay on task and work independently without close monitoring, its tight schedule of moving from lesson to lesson, its use of "network" English, its insistence on punctuality, and its evaluation of children in terms of what they can do instead of who they are, all can be daunting. (p. 405)

Lower SES children are more often identified by their kindergarten teachers as being at-risk for serious academic or adjustment problems; they are absent more in the first grade; and they receive lower teacher ratings on behaviors related to school adjustment such as interest/participation and attention span/restlessness (the latter two strongly predict later academic progress; Entwisle & Alexander, 1993, p. 407).

Students who are behind at the beginning of schooling or slow to start usually learn at a slower rate; those who start ahead gain at a faster rate, which results in what has been called

cumulative advantage or the "Matthew effect" of the academically rich getting richer (Walberg & Tsai, 1984), after the passage in chapter 25 of Matthew in the Bible. These effects are pervasive in school learning, including the development of reading comprehension and verbal literacy. Ironically, although improved instructional programs may benefit all students, they may confer greater advantages on those who are initially advantaged. For this reason, the first six years of life and the "curriculum of the home" are decisive influences on academic learning.

The "curriculum of the home" can be much more predictive of academic learning than the family's socioeconomic status (Marzano, Pickering, & Pollock, 2001; Redding, 2000, 2006). A productive and stimulating home environment includes (1) informed parent—child conversations about school and everyday events; (2) encouragement and discussion of leisure reading; (3) monitoring, discussion, and guidance of television viewing and peer activities; (4) deferral of immediate gratification to accomplish long term goals; (5) expressions of affection and interest in the child's academic and other progress as a person; and perhaps, among such efforts, (6) laughter and spontaneity.

Case studies of poor inner-city Chicago families, for example, showed the children who succeeded in school had parents who emphasized and supported their children's academic efforts, encouraged them to read, and interceded on their behalf at school. Many statistical studies show that indexes of such parent behaviors predict children's academic achievement much better than socioeconomic status and poverty. Such cooperative efforts by parents and educators to modify alterable academically stimulating conditions in the home have had beneficial effects on learning for both older and younger students.

Therefore, educators can help parents, including those in poor families, to help their children, at home and in their communities. Several works referenced in the introduction to this module describe educator-induced techniques that help parents to academically stimulate their children. These have been offered by educators in summers and before, during, and after regular school hours during the academic year. Thus, teachers can help parents to learn and practice the various aspects of the curriculum of the home discussed above.

Source: Herb Walberg, Handbook on Restructuring and Substantial School Improvement

Evidence Review:

Research has long established the strong influence of a student's home environment on that student's success in school. We now have significant, new research that shows that schools can improve their students' learning by engaging parents in ways that directly relate to their children's academic progress, maintaining a consistent message of what is expected of parents, and reaching parents directly, personally, and with a trusting approach (Epstein, 1995; Henderson & Mapp, 2002; Patrikakou, Weissburg, Redding, & Walberg, 2005; Patrikakou, Weissberg, & Rubenstein, 1999; Redding, 2000). Homework is a primary point of interface between the school and the home, and parents are best able to support the school's purposes for homework when they understand what is expected of students and their role in monitoring their children's homework. Consistency from teacher to teacher and across grade levels and subjects contributes to teachers,' parents,' and students' understanding of the school's purposes for homework and also reinforces students' formation of independent study habits. Homework should be used primarily for practice and mastery rather than introduction of new learning. Homework is most effective when graded, corrected, and promptly returned. Building the student's habits of independent study through regular assignment of homework is the key; the total amount of time devoted to homework is less important, although the amount of time should escalate gradually through the grade levels.

For English Language Learners

Schools can help ELL parents support their children's learning by ensuring that they receive regular communication about the school's learning standards, their children's progress, and practical guidance in maintaining daily conversations with their children about their experiences at school. Towards this aim, schools should seek to identify and employ linguistically and culturally responsive approaches that can increase parents' involvement in their children's education through means such as hiring bilingual teachers and administrative staff, forming parent outreach committees, and encouraging parents to participate in school governance committees. For example, schools may consider creating a Family Center to serve as a meeting space in which ELL parents receive information about the schools' values and expectations, have the opportunity to meet with each other to share concerns about their children's education, and can speak with teachers about issues such as their children's progress in school and their home-based study habits. These and other such programs and resources can be instrumental in helping parents to reinforce their children's language and literacy development, academic content learning, and eventual advancement to college.

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