INFORMATION CAPSULE
Research Services

STRATEGIES FOR CLOSING THE ACHIEVEMENT GAP

At A Glance

The achievement gap between white and minority students is one of the most serious problems in education. This information capsule presents research-based classroom strategies for reducing the achievement gap and discusses the importance of positive relationships in school and the impact of environmental supports on providing minority students the opportunity to fully develop their academic ability.

The achievement gap between white students and certain minority student populations and students living in poverty is one of the most critical problems in education today (Gordon, E., Boykin, W., et. al., National Study Group for the Affirmative Development of Academic Ability, 2004). The continuing existence of this gap has been extensively documented by data such as standardized test scores, advanced placement course enrollment, and the proportion of students earning college degrees. Researchers have identified a variety of factors that may contribute to the achievement gap, including the environment the child is exposed to before schooling begins (Jencks and Phillips, 1998), the power of social expectations (Zurawsky, 2004), and school policies and instructional practices (Wenglinsky, 2004). Zurawsky (2004) points to the need for policies that allow minority students the opportunity to study as rigorous a curriculum as do more privileged students and to be taught by teachers with equally high levels of experience.

The National Study Group for the Affirmative Development of Academic Ability, in their report entitled *All Students Reaching the Top: Strategies for Closing Academic Achievement Gaps,* has identified the following research-based strategies that can be applied in large, diverse urban schools and classrooms to help reduce the achievement gap:

- **Provide opportunities for students to practice at retrieval.** To promote long-term retention and transfer, students must frequently be allowed to practice retrieving previously taught material from long-term memory.

- **Vary the conditions of learning.** Conceptual understanding will be enhanced when learning takes place under a variety of conditions and in varied contexts. Different types of problems and alternative solution strategies should be provided.

- **Maximize time for learning.** Teachers should ensure that students are provided with the time needed to learn. Studies show that when the time to learn is held constant, students' ability, instead of their prior knowledge, is the best predictor of mastery.

- **Represent knowledge using alternative forms.** Learning is more powerful when students are prompted to take information presented in one format and "represent" it in an alternative way. Students' learning and recall can be improved by integrating information from both the verbal and visual-spatial modes of representation.

- **Build on students' prior knowledge and experience.** A student's knowledge base gives meaning to newly learned material. Prior knowledge influences how a student interprets information and decides what aspects of this information are relevant or irrelevant.

- **Emphasize knowledge and skill development.** Teachers must make explicit those concepts and processes that students need to know, understand, and internalize in order to achieve mastery.

- **Infuse lessons with strategies for learning.** Teachers can help students by discussing ways of learning, infusing their lessons with strategies for learning, and exploring students' beliefs about learning.

- **Provide systematic feedback.** Teachers should provide students with continuous feedback on homework assignments, projects, and tests throughout the course of instruction and lead classroom discussions to address students' misconceptions.

- **Use dynamic classroom assessment.** Standardized tests are examples of "sequestered problem solving" because students don't have the opportunity to seek help from other resources (teachers, students, or textbooks), engage in trial and error forms of learning, get feedback, or revise their work. Students must be given the chance to assess their own learning, monitor and regulate their learning strategies, and capitalize on corrective feedback.

The National Study Group for the Affirmative Development of Academic Ability has also emphasized the importance of positive relationships in school.

- Trust in the school plays a critical role in the academic development of minority students. Research shows that concern about one's belonging can directly impact one's achievement. Two psychosocial processes have been found to hinder the development of minority students' academic ability: attributional ambiguity and stereotype threat. Attributional ambiguity is when a student receives feedback but has difficulty determining when the feedback is accurate or actually reflects racial bias on the part of the person providing the feedback. Stereotype threat is the awareness that others may judge one's performance in terms of one's racial background, instead of his or her individual background. Educators must work together to ensure that students are not stigmatized.

- The manner is which students are socialized is also an important part of the learning process. Key socialization strategies include solving problems by exploring, articulating, and debating issues such as the

features of the problem, students' prior knowledge, and the strengths and weaknesses of multiple solution paths. Students can solve problems together by building on each other's knowledge, asking to clarify explanations, and suggesting different solutions. In this way, cooperation and argumentation in problem solving enhance cognitive development. Students should be coached on the importance of interacting and working with diverse people. If socialization experiences are a routine part of instruction across all subjects and grade levels, students will be more likely to develop competencies, including:

- willingness to persist with difficult problems in the face of uncertainty;
- willingness and ability to search their repertoires of existing knowledge to look for connections to new problems; and
- sensitivity to look closely for recognizable patterns that help define the problem they are tackling.

Research has found that peer study groups create opportunities for academic and social support and contribute to higher academic achievement. These groups allow students to see themselves as part of an academic community and realize that excelling means working hard and persevering. They promote conversations where students are required to articulate their own ideas and listen to others' ideas so that they are exposed to many different perspectives.

The National Study Group for the Affirmative Development of Academic Ability has identified the following environmental supports that are critical to the development of students' academic abilities:

- **Access to "education-relevant capital."** High achieving students more often have access through their families and communities to "education-relevant capital" that forms behavior that is positively oriented toward education. Types of capital include economic resources available for education, personal or family assets, and societal membership.

- **Supportive family environment.** Family background and income are strong predictors of achievement in school. Books, help with homework, and a quiet place to study are all associated with academic achievement.

- **Supportive community environment.** Teachers should design classroom activities and promote attitudes that build a sense of community by developing new ways to link classroom learning to other aspects of students' lives. For example, students can be required to participate in community service, which gives them the responsibility of representing their school in the community.

- **Supportive academic environment.** Teachers must pay close attention to the knowledge, skills, and attitudes that students bring into the classroom and recognize that cultural differences can affect students' comfort levels when working collaboratively.

- **Socialization to the attitudinal and behavioral demands of high academic achievement.** Classroom activities should be directed at shaping the attitudes, dispositions, and habits that encourage students to engage in pro-academic pursuits. Students should be socialized to ask questions, know where to seek answers, and solve problems. They must be encouraged to set high standards for themselves, follow through, be dependable, and work well with others. Continuous monitoring and advising of students should emphasize the skills, values, and habits students must acquire to achieve academic success.

- **Academic and social integration.** Research shows that academic and social integration of students leads to increased persistence, better knowledge retention,

and higher grade point averages. District and school leadership must promote peer support, high academic goals, and meaningful community service. School staff should pay special attention to the needs of underrepresented students to encourage and reinforce their participation. These acts of inclusion will help to ensure that all students develop academic and social competencies, have a sense of membership in their school, and are capable of carrying out the responsibilities of this membership in academic and social environments.

- **Exposure to various forms of supplementary education.** Supplementary education refers to learning opportunities that are provided for students outside of the regular school day or year. Studies have found that experiences that occur outside of school contribute to students' academic success in school. Supplements to schooling also include special efforts parents make to encourage their children's academic development, such as family discussions of important issues, reading to and with children, investments in educational materials, and visits to museums and libraries.

- **Exposure to models of academic excellence and exemplars of scholarly practice.** Mentors can facilitate students' educational and professional growth. As professional role models, they should be matched to students' areas of interest. Mentors can be recruited from a variety of settings, including universities, corporations, and government facilities, and can consult with students on educational and career issues, as well as topics such as class scheduling, internships, school placements, and career choices.

Actions that will help to ensure that all students are given the opportunity to fully develop their academic ability include:

- Strengthening teacher preparation programs so that teachers are able to introduce rigorous content and challenging learning experiences in the classroom. Special attention should be given to better enabling staff to meet the instructional requirements of an increasingly diverse student body.

- Designing instructional programs that set high expectations for every student. Performance improves when all students have the opportunity to learn the same challenging curriculum, characterized by high standards and expectations.

- Creating an environment that provides the necessary social supports for learning. It is important for students to be surrounded by peers and family members who value and support academic effort.

Sources: Gordon, E., Boykin, W., et. al. *All Students Reaching the Top: Strategies for Closing Academic Achievement Gaps.* A Report of the National Study Group for the Affirmative Development of Academic Ability, Naperville, IL: Learning Point Associates, 2004.

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