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WHAT WE KNOW ABOUT CULTURALLY RESPONSIVE INSTRUCTION

At A Glance

All children grow up within a cultural environment that influences their learning patterns and communication styles and how they interpret experiences, process and organize information, and perceive their surroundings. Culturally responsive instruction incorporates students' cultures and experiences into the classroom curriculum and uses their diverse backgrounds to enhance teaching and learning. Studies offer preliminary evidence that culturally responsive instruction may play a role in increasing culturally and ethnically diverse students' levels of achievement, but more research is needed. This information capsule reviews studies conducted on the impact of culturally responsive instruction on student academic outcomes and provides a summary of research-based strategies educators should consider to promote culturally responsive instruction.

Culture does not determine ability or intelligence, but it can affect the way children learn. All children grow up within a cultural environment that influences their learning patterns and communication styles and how they interpret experiences, process and organize information, and perceive their surroundings (Protheroe & Turner, 2003; Educational Research Service, 2002; Teaching Diverse Learners, n.d.).

Gay (2000) reported that culturally diverse students are often taught from an educational framework based on the following assumptions:

- Education is not related to culture and heritage.
- Good teaching practices are the same for all students and under all circumstances.
- Treating students differently based on their culture or ethnicity is racial discrimination.
- Education is an effective way to assimilate students into the mainstream society.

In contrast, culturally responsive instruction recognizes the importance of including cultural references in all aspects of learning. It is based on the belief that students' diverse backgrounds are assets that can be used to enhance teaching and learning. Culturally responsive teachers link culture and instruction and design lessons around their students' strengths, weaknesses, and needs. Students' cultures and family and community experiences are incorporated into the academic and social context

of schooling, including the curriculum content, classroom climate, student-teacher relationships, instructional techniques, and performance assessments (Protheroe & Turner, 2003; Zeichner, 2003; InTime, 2002; Nieto, 2002; Padrón et al., 2002; Gay, 2000; Virginia Polytechnic Institute and State University, 1998; Ladson-Billings, 1994).

Why Culturally Responsive Instruction is Important

The United States is becoming more diverse and the Educational Research Service (2002) has projected that by 2050, 64 percent of American youth (birth to age 18) will come from a non-white minority group. Most schools already teach students from a variety of cultures and ethnic groups. Many students enter school with experiences and behaviors that have not traditionally been valued in public school settings. A survey conducted by Jimenez (2000) found many Hispanic students felt going from home to school was like living on a border between two countries. Students also expressed fear that if they become immersed in the English language, they would forget their Spanish.

Researchers have begun to focus on the role culture plays in the achievement gap between white and minority students. Efforts to close the achievement gap have been largely unsuccessful to date. Although research has not definitively identified the reasons for this gap, it appears that “a complex combination of school, community, and home factors is at work. The possibility of a misalignment between the culture of many classrooms and the home culture of many students . . . is just one of these factors, but one that schools can address without sacrificing standards” (Educational Research Service, 2002).

Researchers caution that, although educators should identify commonalities within cultures, they must also remember that within any given ethnic group, individuals vary greatly in their experiences, practices, and beliefs. While general cultural knowledge can provide useful information about students, teachers must regard every student as an individual. Educators should also be aware that cultural conflicts are not always limited to foreign-born students or students from certain ethnic groups, but may also arise between students from different socioeconomic backgrounds (Protheroe & Turner, 2003; Trumbell et al., 2000).

Strategies for Promoting Culturally Responsive Instruction

No single approach will solve all of the educational challenges facing ethnically and culturally diverse students. Each school is unique and educators should choose culturally responsive practices that meet the needs of the students they serve (Padrón et al., 2002). Following are research-based strategies educators should consider to promote culturally responsive instruction:

- **Diversifying instructional strategies.**

Children from homes in which the culture does not closely correspond to that of the school are at a disadvantage in the learning process. Students from different cultures learn in different ways. For example, students from some cultural groups prefer to learn in cooperation with others, while others prefer to work independently. To maximize classroom learning opportunities, teachers should gain knowledge of the cultures represented in their classrooms and adapt lessons so they reflect ways of communicating and learning that are familiar to their students (Teaching Diverse Learners, n.d.). To assist students who do not initially respond well to mainstream techniques, instructional methods that are more “culturally compatible” should be used to present new or difficult materials. Mainstream methods can then be used to reinforce learning and assist with skill mastery (Protheroe & Turner, 2003).

Teachers must carefully plan instruction for the diverse populations in their classes and not use lecture as the only method (Schmidt, 2005). Inappropriate instructional techniques often used when educating students about culturally and ethnically diverse populations include:

- “Side-bar” approach. Presentation of ethnic experiences is limited to a few isolated events, frequently relegated to a box or side-bar, set apart from the rest of the text.
- “Superhero” syndrome. Only exceptional individuals from among a specific ethnic or cultural group are acknowledged.
- “One size fits all” view. Instructional materials reflect cultural bias by implying there is a single Black, Hispanic, Asian, or Native American culture. This view fails to recognize there is considerable cultural diversity within each of these groups and that cultures change over time (Abdal-Haqq, 1994).

Varied teaching strategies include using cooperative learning for new material and then assigning independent work after students are familiar with the concept; incorporating community-related themes into classroom projects; including reading material that is found in both the home and schools; studying people and periods from a socio-political and personal perspective; and instructional conversations (extended discourse between the teacher and students, providing opportunities for extended dialogue in areas that have educational value as well as relevance for students). Technology-enriched instruction, such as web-based picture libraries and digitized books, is especially helpful for English language learners for developing skills such as reading comprehension and oral proficiency (Padrón et al., 2003; Padrón et al., 2002; Virginia Polytechnic Institute and State University, 1998; Nichols et al., 1996; Teaching Diverse Learners, n.d.).

- **Recognizing differences in learning styles.**

Closely related to the importance of diversifying instructional strategies is the recognition of differences in students' learning styles. Researchers have identified unique characteristics in the learning styles of different ethnic and cultural groups. Reading researchers found that Black and White students differ in storytelling styles, writing style preference, oral language skills, and questioning styles (InTime, 2002; Pinkard, 1999). Bazrón, Osher, and Fleischman (2005) reported that many Black students thrive on intense and sensitive peer relations. They suggested that teachers make positive instructional use of these behaviors by creating assignments that require group interaction. Irvine and York (2001), based on a review of research conducted on different learning styles, concluded that Black students are holistic learners who tend to:

- consider background and other factors when processing information;
- prefer inferential reasoning to deductive or inductive reasoning;
- approximate space and numbers;
- focus on people rather than things;
- be more proficient in nonverbal than verbal communications;
- prefer learning characterized by variation and freedom of movement; and

- prefer evening rather than morning learning.

Foster's (2001) review of research identified practices Black teachers were likely to use in their classrooms. The teachers studied used an "authoritative style that integrated acceptance and involvement." They focused on students' academic, social, and emotional skills, encouraged cooperative learning, and were more likely than other teachers to use metaphors, analogies, call and response, and rhyme in their teaching.

Irvine and York (2001) characterized Hispanic students as holistic and relational learners who tend to:

- consider background and other factors when processing information;
- prefer group learning situations;
- be sensitive to the opinions of others;
- remember faces and social words;
- be extrinsically motivated;
- learn by doing; and
- prefer concrete representations to abstract ones.

Most Asian students, particularly East and Southeast Asians, have cultural values and practices that differ from the mainstream American culture. In many East and Southeast Asian cultures, educational achievement, respect for elders, deferred gratification, and discipline are highly valued. Asian American children tend to be more dependent, conforming, and willing to place family welfare over individual wishes than are most American children. Asian American parents are more likely to see academic failure as a lack of will. Teachers in Asian cultures are given a higher status than teachers in the United States. Therefore, Asian American students may be confused by the informality between American teachers and students. Asian children tend to work more efficiently in well-structured, quiet environments and often don't participate unless they are asked to do so by the teacher (Protheroe & Turner, 2003).

Several studies have examined the learning styles of Native Hawaiian and Native American students. Au (2001) reported that Native Hawaiian children preferred to construct answers with their peers, rather than on their own, and to respond cooperatively to teachers'

questions. Au (2001) also found that Native American children did not like to be the center of attention in the classroom, but responded willingly when working with smaller groups of peers or during individual conferences with their teachers. Bazrón et al. (2005) reported that Pueblo Indian students took more time responding to instruction than Native Hawaiian students. They suggested that, when asking questions or giving directions, teachers adjust the wait time for students from different cultures to maximize classroom participation. For example, teachers who advance too quickly might falsely assume Pueblo Indian students are unresponsive or do not understand the concepts being presented. In contrast, they might inappropriately interpret Native Hawaiian students' preference for short wait times and overlapping speech as "acting out."

- **Using student-centered instruction.**

Student-centered instruction is cooperative, collaborative, and community-oriented. Students are encouraged to direct their own learning and to work with other students on research projects and assignments that are both culturally and socially relevant to them. Teachers promote student engagement, share responsibility for instruction, create an inquiry-based and discovery-oriented curriculum, and encourage the formation of a community of learners (Protheroe & Turner, 2003; Teaching Diverse Learners, n.d.). Researchers have concluded that characteristics of student-centered culturally responsive instruction include:

- **Active Teaching Methods.** Instruction is designed to promote student participation by requiring all students to play an active role in developing classroom activities. Students are involved in a variety of reading, writing, listening, and speaking behaviors.
- **Cooperative Learning.** Culturally responsive instruction is organized around student-controlled learning groups. Cooperative learning provides opportunities for students to communicate with each other; enhances instructional conversations; develops academic, social, and communication skills; and increases self-confidence through individual contributions and achievement of group goals. Researchers have suggested that

participation in a collaborative process is critical for ethnically and culturally diverse students to develop the social skills and inter-group relations essential to academic success.

- **Student-Controlled Classroom Discourse.** Teachers create classrooms that invite dialogue among students and between students and teachers that forms the basis for instruction. Students are encouraged to talk about the topic being studied while completing assignments in small groups or pairs. One obstacle to teaching students from different cultures is the difference in the way students interact with authority figures. Through discourse, students learn how to build relationships with their teachers in a safe environment.

- **Teacher as Facilitator.** The teacher's role is one of guide, mediator, and knowledgeable consultant, as well as instructor. Teachers present information, give directions, summarize responses, and provide assistance through the use of questioning and feedback. When teachers act as facilitators, they learn more about individual students by observing how they gain information, understand new concepts, evaluate new ideas, and apply what has been learned (Burns et al., 2005; Johnson, 2005; Schmidt, 2005; Callins, 2004; Padrón et al., 2003; Protheroe & Turner, 2003; Padrón et al., 2002; Educational Research Service, 2002; InTime, 2002; Teaching Diverse Learners, n.d.).

- **Including multicultural and multiethnic literature.** One of the most effective ways to educate students about the cultural heritage of different groups is to incorporate multiethnic and multicultural literature into the classroom. Multicultural and multiethnic literature present authentic views of an ethnicity or culture and help students develop an understanding and appreciation of other histories and cultures. Teachers should include various types of reading materials that reflect multiple perspectives and literary genres. Since myths, legends, and folk tales reflect the values of people from around the world, these forms of literature are often recommended (InTime, 2002; Au, 2001; Gay, 2000; Virginia Polytechnic Institute and State University, 1998; Nichols et al., 1996).

- **Communicating high expectations.** A feature of culturally responsive instruction is the emphasis on high expectations for every child. All students should understand they are expected to attain high standards in their school work. The message must be delivered consistently by all who are involved in students' academic lives, including teachers, guidance counselors, administrators, and other school personnel (Burns et al., 2005; Schmidt, 2005; Callins, 2004; Protheroe & Turner, 2003; Teaching Diverse Learners, n.d.).
- **Using a variety of assessment tools.** Evaluating the progress of students from diverse ethnic and socioeconomic groups is complicated by differences in language, learning styles, and cultures. A single method of assessment often does not accurately measure diverse students' academic progress. A variety of tools should be used to assess students' cognitive and social skills. Some students prefer to demonstrate mastery by writing, while others prefer to speak or perform. Some students prefer to work alone, while others like to work in groups. Alternative assessment approaches (such as portfolios, student journals, observations, oral examinations, and teacher-made as well as standardized tests) have the potential to address cultural differences by recognizing the different ways students demonstrate their mastery (Banks et al., 2001; Sewell et al., 1998; Smith-Maddox, 1998).
- **Acknowledging the legitimacy of different cultures.** Cultural proficiency has been defined as "knowing how to learn and teach about different groups in ways that acknowledge and honor all people and the groups they represent" (Lindsey et al., 2005). Culturally proficient educators acknowledge the legitimacy of the cultural heritages of different groups and value their beliefs. They recognize that students have diverse communication and social interaction patterns and understand that students' backgrounds affect their dispositions, attitudes, and approaches to learning, then incorporate this knowledge into classroom practices (Burns et al., 2005; Callins, 2004; Gay, 2000).

Students should be taught to appreciate their own and each others' cultural heritages. Teaching students about the values shared by virtually all cultural groups (such as justice,

equality, freedom, and peace) can promote positive intergroup relations. Teachers should help students acquire the social skills needed to interact with students from other racial, ethnic, cultural, and language groups and provide opportunities for these different groups to interact (Banks et al., 2001; Gay, 2000).

- **Connecting home experiences to school.** Culturally responsive instruction makes meaningful connections between students' backgrounds, interests, and experiences and the academic content of the classroom. Teachers should use students' home cultures and experiences as resources for teaching and learning instead of viewing them as barriers to education. Most students are strategic learners but fail to recognize that the strategies they use in their homes and communities can be applied to learning and solving problems at school (Burns et al., 2005; Schmidt, 2005; Zeichner, 2003; Au, 2001; Virginia Polytechnic Institute and State University, 1998).

Gay (2000) stated that "Much of the actual act of teaching is devoted to providing examples, illustrations, vignettes, scenarios, and anecdotes to demonstrate the meanings and functions of concepts, ideas, facts, principles, and skills. The process begins with naming, defining, and explaining the idea being taught. All other subsequent instructional efforts are devoted to illustrating how, when, and in what situations, the idea or concept can be applied. These illustrations act as 'bridges' between the abstract idea and the life experiences of learners . . . When teachers fail to use culturally relevant teaching examples, they inhibit the learning of students of color . . . An important way to make teaching and learning more effective for ethnically diverse students of color is to broaden the pool of teaching examples so that they are culturally pluralistic."

- **Building relationships with families and communities.** Culturally responsive teachers have positive perceptions of the families of culturally and linguistically diverse students. They interact on an ongoing basis with parents and community members and include them in classroom curriculum and activities (Callins, 2004; Padrón et al., 2003).

Surveys of Hispanic parents consistently show they value learning and want to support their children in school. Research on Black parents

and parents of low socioeconomic status also suggests they would like to be more involved with schools than they are (Padrón et al., 2003; Trumbell et al., 2000; August & Hakuta, 1998). Families from diverse ethnic and cultural backgrounds and lower socioeconomic levels often want to become more involved with their child's schooling but do not know how to negotiate the system (Bazrón et al., 2005; Schmidt, 2005; Trumbell et al., 2000). Strategies for facilitating interactions with culturally diverse families include:

- Learn about parents' expectations and concerns by conducting needs assessments and surveys, establishing parent-teacher committees, and making home visits during which parents are given the opportunity to speak freely about their expectations and concerns.
- Encourage parents to visit the school and observe their child's classroom.
- Utilize community resources by inviting parents and community members to speak in the classroom, teach a lesson, or give a demonstration in their area of expertise.
- Keep parents apprised of services offered by the school through newsletters and meetings at parents' homes or community centers.
- Provide parents with ongoing information regarding their children's performance in school.
- Ask parents what style of communication they prefer. Some parents prefer personal interactions and conversational language to more formal written communications.
- Research the cultural background of students' families by visiting community centers to find out about local cultural activities and touring students' neighborhoods to identify local resources (Bazrón et al., 2005; Kalyanpur, 2003; Padrón et al., 2003; Trumbell et al., 2000; Teaching Diverse Learners, n.d.).
- **Gaining awareness of different cultural value systems.** Studies comparing American parents to those of other cultures have found that American parents are more likely to stress

the importance of their children's social and economic self-reliance. Schools in the United States reflect this individualistic orientation and encourage students to become independent thinkers and focus on their own achievement. American parents are more likely to teach their children that authority does not rest exclusively with their teacher. Students are encouraged to consult other sources of information and build their own knowledge. In contrast, families from societies that emphasize group cooperation and collaboration, such as Central America, Mexico, and Korea, see children's primary role as contributors to the family unit. Children are expected to act on a strong sense of responsibility toward the family and the community and their self-worth is not defined primarily in terms of individual achievement (Trumbell et al., 2000).

These two orientations typically lead to different patterns of teaching and learning in the classroom. Collectivistic cultures tend to teach to the whole group and allow students to learn from each other, while individualistic cultures tend to emphasize individual responsibility for learning, even when instruction is presented to the whole group (Trumbell et al., 2000).

Bridging Cultures is a program designed to improve teachers' understanding of cultural value systems and it uses this understanding to improve the classroom experiences of ethnically and culturally diverse students. Trumbell, Greenfield, and Quiroz (2003) evaluated the Bridging Cultures program in bilingual Spanish-English elementary classrooms in the greater Los Angeles area. They reported that teachers developed some simple modifications to make their classrooms more "culture-friendly" for students with backgrounds that emphasized the importance of collaboration. Teachers:

- selected two classroom monitors, rather than one, and allowed them to work together;
- allowed students to help each other with vocabulary (students with greater English proficiency helped those with less);
- allowed students to work in small groups to preview homework assignments;
- used choral, as well as individual, reading;
- selected more than one "student of the week," so attention was shared;

- shared cleanup of the classroom; and
 - allowed joint “ownership” of classroom supplies.
- **Training teachers.** Teachers should be prepared to provide meaningful learning for all of their students, regardless of ethnicity or cultural background, and design curriculum, instruction, and assessment that meet the needs of all populations of students. Professional development programs should help educators gain an appreciation of the histories, traditions, and practices of diverse ethnic, cultural, and language groups. A culturally sensitive teacher does not have to be an expert on every culture, but should have a general understanding of the beliefs and values held by diverse groups (Burns et al., 2005; McPhail & Costner, 2004; Zeichner, 2003; Banks et al., 2001; Ford & Trotman-Frazier, 2001; Gay, 2000; Shaw, 1997).

Training should also help teachers develop an awareness of their own ethnic and cultural identities in order to understand and appreciate those of their students. Teachers who are aware of how their own cultural biases may influence their judgments about students are better able to respond to the learning needs of diverse groups of students (Schmidt, 2005; McPhail & Costner, 2004; Zeichner, 2003; Banks et al., 2001).

Professional development programs should help teachers understand the ways in which ethnicity, language, and socioeconomic status interact to influence student behavior (Banks et al., 2001). Questions teachers should ask as they prepare to teach culturally and ethnically diverse students include:

- Does the classroom teaching style differ from students’ accustomed learning styles (for example, teacher-directed versus peer-mediated instruction)?
- Are classroom practices compatible with students’ language patterns and the social norms to which they are accustomed?
- How can the strengths students bring to the classroom be incorporated into instruction?
- Do the approaches used to assess students reflect the diversity of students’

strengths and styles?

- What are culturally acceptable ways to provide feedback to students about their academic and social behaviors?
- What roles do silence, questions, and responses play in the student’s culture?
- How do students’ quiet and obedient behaviors (such as not raising their hands to be called upon) influence other’s perceptions?
- Are students’ inappropriate behaviors the result of cultural misunderstandings?
- Do students maintain personal space or distance differentially in their interactions with other students or with adults? (Pewewardy, 1999; Sileo & Prather, 1998)

In addition to workshops and training sessions on culturally responsive teaching, educators should be provided with culturally responsive curriculum units and ongoing technical assistance. Teachers need support from a facilitator who is knowledgeable about the impact of culture, ethnicity, and socioeconomic status on teaching and learning. Regular team meetings, led by the facilitator, should include learning about and discussing how culture, ethnicity, and socioeconomic status impact teaching and learning and designing lessons that incorporate the principles of culturally responsive education (Hughes et al., 2004).

Research on the Impact of Culturally Responsive Instruction

Computer-Based, Culturally Relevant Reading Programs

Pinkard (1999) studied the effectiveness of *Rappin’ Reading*, a computer-based instructional program that builds on the cultural knowledge students bring to the classroom. The *Rappin’ Reading* program places reading instruction in a culturally relevant context by having students construct lyrics to familiar rap music. Pinkard (1999) compared the sight vocabulary scores of Black and White first to fourth grade students before and after their use of the *Rappin’ Reading* program. Results of the study indicated that, while White students had a higher pretest and posttest average number of words learned at all grade levels, Black students had a

greater or equal percentage gain in sight vocabulary, compared to their White counterparts, at each grade level.

Pinkard (1999) also examined the effect of *Say Say Oh Playmate* on students' sight vocabulary. Participants in the study were urban, Black, low income first and second grade students. *Say Say Oh Playmate* is a computer-based program that places reading instruction in a cultural context by having students learn, create, and record original African-American clap-routines. Pinkard reported that all students' sight vocabulary increased after using the *Say Say Oh Playmate* program. The reader should note, however that these results should be interpreted with extreme caution, as no comparison group was used and the sample size was too small (n=12) to allow for meaningful generalizations.

National Educational Longitudinal Survey Data

Smith-Maddox (1998) examined data from the National Educational Longitudinal Survey of 1988, a longitudinal study of over 24,000 eighth grade students from 1,052 schools in the United States. She analyzed the impact of learning about culture on standardized mathematics test scores, based on students' reports of whether they had studied their ethnic group's history, government, and social studies in English classes or in their primary language during the first two years of middle school. After controlling for variables such as gender, student aspirations, parents' socioeconomic status, and parental involvement and expectations, Smith-Maddox (1998) concluded contrary to prevailing thought, that learning about culture did not lead to higher levels of mathematics performance. Black and American Indian students who were taught about their culture did not receive significantly higher mathematics scores than Black and American Indian students who were not taught about their cultures. Hispanic, Asian, and White students who were taught about their culture received lower mathematics scores than Hispanic, Asian, and White students who were not taught about their culture. Future studies might wish to examine the impact of learning about culture on performance in additional subject areas, such as language arts and social studies.

Smith-Maddox (1998) also examined the impact of students' interactions with their teachers on standardized mathematics test scores. Engaging in regular communication with teachers appeared to have a positive impact on Black, Asian, and

White students' mathematics scores, but no impact on American Indian students' mathematics scores. Hispanic students who reported communicating regularly with their teachers, however, received lower mathematics scores. It should be pointed out that students only reported if they talked to their teacher about studies in class and did not rate the quality of the interactions. A study that examined both the frequency and quality or perceived usefulness of teacher-student conversations would provide more insight into the impact of teacher-student communication on academic achievement.

Training in Culturally Responsive Teaching Methods

Four schools in West Virginia participated in a three-year pilot project designed to improve the academic achievement of their predominantly Black, low income students (Hughes et al., 2005; Hughes et al., 2004). Based on classroom observations, the authors reported that teachers who were trained in culturally responsive teaching methods and who taught a culturally responsive unit created a more positive classroom learning environment, demonstrated better use of class time, and had the greatest percentage of students on task of all classroom groupings studied. These teachers' students were observed to be receiving more appropriate instruction and to be more engaged in learning tasks than their peers in other classrooms studied. However, scores on the West Virginia Educational Standards Test (a criterion-referenced measure of reading/language arts, mathematics, science, and social studies) indicated that comparison school students received, on average, higher mean scale scores across grades and content areas than pilot school students.

Five Standards for Effective Pedagogy

Studies have been conducted on the impact of teachers' use of the five standards for effective pedagogy developed by Tharp, Doherty, Echevarria, Estrada, Goldenberg, Hilberg, et al.'s (2003). The Standards, which encompass many of the principles upon which culturally responsive instruction is based, are: Teachers and Students Producing Together; Developing Language and Literacy Across the Curriculum; Making Meaning and Connecting School to Students' Lives; Teaching Complex Thinking; and Teaching Through Conversation.

Hilberg, Tharp, and DeGeest (2000) reported on a study of eighth grade American Indian students

randomly assigned to either Transformed (classes in which the Five Standards for Effective Pedagogy were implemented) or Traditional (whole class) mathematics instruction. Students in the Transformed classes scored higher on tests of conceptual learning at the end of the study period, exhibited better retention of unit content two weeks later, and reported improved attitudes toward math.

Doherty, Hilberg, Pinal, and Tharp (2003) conducted two studies that examined the influence of Tharp et al.'s (2003) Five Standards for Effective Pedagogy on Hispanic, predominantly low-income students in a California elementary school. Results of the first study indicated a significant relationship between teachers' use of the Five Standards and students' performance on the Stanford Achievement Test. After controlling for the effects of teachers' years of experience and students' grade level and English proficiency, higher teacher scores on the Standards Performance Continuum (a five-point rubric measuring teachers' performance on the Five Standards) more reliably predicted achievement gains than students' prior year Stanford scores on tests of comprehension, reading, spelling, and vocabulary. The relationship was not significant for the language subtest and only marginally significant for the vocabulary subtest.

Doherty et al.'s (2003) second study used data gathered concurrently from the sample of students used in their first study. The researchers found that achievement gains in comprehension, reading, spelling, and vocabulary were greater for students whose teachers had transformed both their pedagogy and the organization of instructional activities, as specified in Tharp et al.'s (2003) Five Standards for Effective Pedagogy, compared to students whose teachers had not similarly transformed their teaching. The researchers found, however, that transforming pedagogy alone, without transforming classroom organization, was not more effective than untransformed pedagogy.

Fourth grade English language learners in an urban elementary school read a short story and then were randomly assigned to one of two types of lessons. The treatment group participated in instructional conversation (teacher-led small group discussions of story content and theme) and the control group participated in a directed reading lesson suggested in teachers' current reading series. No difference was found between treatment and control students' posttest literal comprehension, but a significantly greater percent

of students in the treatment group demonstrated a clear understanding of the story theme than students in the control group (Saunders & Goldenberg, in press).

Saunders and Goldenberg (1999) studied the effect of instructional conversation and literature logs on over 100 fourth and fifth grade students in an urban, predominantly Hispanic and low income, elementary school. Students received instruction on a literature unit and were randomly assigned to one of four groups: instructional conversation; literature logs; both instructional conversation and literature logs; or a comparison group. The researchers found that students in the instructional conversation plus literature log condition had higher levels of factual and interpretative story comprehension than students in the other conditions, regardless of language proficiency. In contrast to the findings on story comprehension, the effect of instructional conversation and literature logs on understanding story theme depended on students' language proficiency. Although limited English proficient students benefitted from the combined effects of instructional conversation and literature logs, there were no significant differences on the posttest measures of fluent English proficient students' theme understanding.

Achievement Via Individual Determination

Several studies examined the impact of the Achievement Via Individual Determination (AVID) program on students' academic outcomes. AVID is designed to help ethnically and culturally diverse students perform well in high school and pursue a college education. The program includes many of the features emphasized in culturally responsive instruction, such as recognizing differences in learning styles, communicating high expectations, and acknowledging the legitimacy of different cultures. AVID places underrepresented students from ethnic and language minority groups in rigorous academic classes and provides them with extensive academic, personal, and social support from school staff. Participation in the AVID program was found to successfully prepare underrepresented students for college. From 1988 to 1992, 94 percent of AVID students enrolled in college, compared to 56 percent of all high school graduates. Black and Hispanic AVID participants enrolled in college in numbers that exceeded local and national averages (Mehan & Hubbard, 1999; Mehan et al., 1996).

Watt, Yanez, and Cossio (2002) studied six schools from seven Texas school districts that implemented AVID. The approximately 1,000 AVID students in the schools of study were predominantly Hispanic and Black, regardless of the ethnic distribution of the school. The average AVID student's parents had only an eighth grade education and AVID student socioeconomic status was reported to be much lower than that of the average Texas public schools student. Data, including grade point averages, attendance rates, course enrollment, and test scores, were collected over a two-year period.

Despite being placed in rigorous academic courses for the first time in their educational careers, AVID students' grade point averages, test scores, and attendance rates tended to rise or remain at high levels. AVID students outperformed their classmates on the Texas Assessment of Academic Skills and end-of-course exams. In addition, AVID students' grade point averages were above the eightieth percentile, despite the added academic rigor. Most notably, AVID student attendance rates improved and even exceeded those of the general student population.

Watt, Powell, and Mendiola (2004) studied over 1,200 predominantly Hispanic, Black, and economically disadvantaged AVID students at 10 Texas high schools. Data, including test scores, attendance rates, advanced course enrollment patterns, and graduation plans, were collected over a three-year period. AVID students were found to have higher attendance rates during all three years of data collection. They passed their Algebra end-of-course exams at higher rates than their classmates in all three years of the study and, in the final two years of the study, their average score was higher than the state average. AVID students' Biology end-of-course exam passing rates exceeded those of their classmates and all students in the state in the final two years of the study. AVID students also received higher average scores than

their classmates and students statewide on both the reading and mathematics portions of the Texas Assessment of Academic Skills. Following their participation in the program, over 97 percent of AVID students, compared to 62 percent of their classmates, were on track to graduate on either the recommended or distinguished graduation plans.

Summary

Culturally responsive instruction recognizes the importance of including cultural references in all aspects of learning. It is based on the belief that students' diverse backgrounds are assets that can be used to enhance teaching and learning. Research-based strategies educators should consider to promote culturally responsive instruction were summarized in this report, including diversifying instructional strategies, connecting home experiences to school, engaging in student-centered instruction, and building relationships with families and communities. Studies have examined the impact of culturally responsive instruction on student academic outcomes and they offer preliminary evidence that it may play a role in increasing the academic achievement of ethnically and culturally diverse students. Findings have been mixed, however, and more research is needed to determine the impact of culturally responsive instruction on students' levels of achievement. For example, studies found that culturally responsive instruction increased students' sight vocabulary and created a more positive classroom learning environment. In contrast, one study reported inconsistent findings across ethnic groups and another found that students in culturally responsive classrooms scored lower on content area standardized tests than a comparison group of students. Researchers studying the impact of The Five Standards for Effective Pedagogy and AVID, educational reform programs that share characteristics with culturally responsive instruction, reported positive academic outcomes.

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