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Why Closing the Research–Practice Gap Is Critical to Closing Student Achievement Gaps

Discussions of the research–practice gap often assume that K–12 educators are uninterested in or even derisive about the value of research for improving student learning. The work of K–12 educators in the Minority Student Achievement Network (MSAN) counters this conventional wisdom. This article provides evidence that MSAN educators not only value research, they see that closing the research–practice gap is essential to helping racially diverse districts close the gaps in achievement between their African American and Latino students and their White students. The article traces how research shaped the development of MSAN and describes the three current roles

for research in MSAN—organizing the existing knowledge base, building capacity to evaluate local efforts, and collaborating with researchers to conduct applied research.

THE CLOSING COMMENTS AT A recent Minority Student Achievement Network (MSAN) meeting directly countered the conventional wisdom about the relationship—or, rather, the lack of a relationship—between research and practice. Teachers commented:

- “The binders (a pilot curriculum) are incredible. They really represent theory into practice.”
- “Social (science) research has a valuable place in educational lesson plans.”
- “It has been a powerful experience to combine both practices (from researchers and practitioners) to help our low-achieving students.”

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One of the researchers reinforced the practitioners' focus on the value of the process:

The process has been incredible, and I am honored to have been part of it. I have learned to step out of my researcher role to consider more practical needs and limitations and consequences that happen in schools and with students. I have learned how to work with and listen to teachers to create activities that are grounded in social science and practical teaching for kids.

Closing the research–practice gap has been central to the success of this MSAN project that brings teachers together with social psychologists and mathematics education researchers from the Charles A. Dana Center at the University of Texas to develop a new approach to introductory algebra for students who have previously struggled with math.

Rather than resisting or rejecting research, the math teachers found the research on the impact of psychological factors on academic achievement directly relevant to their work. When asked what they had learned in the project, teachers emphasized the value of research:

- “The incremental theory of learning as opposed to the entity theory of learning was very enlightening.”
- “Things about what affects kids’ learning. . . . I didn’t know about stereotype threat or theories of intelligence.”
- “It has validated my need to teach students how to be better learners.”

In an era of hand-wringing about the impossibility of bringing together the worlds of research and practice, this feedback is cause for celebration and reflection. Even in its initial phase, the Algebra/Academic Youth Development Initiative (AYD) provides evidence that it is both possible and desirable to bring together researchers and practitioners to address the very real problems of practice.

The purpose of this article is to counter the notion that practitioners do not value research by demonstrating how MSAN’s commitment to

research has evolved over the last 8 years. Specifically, the article outlines the beliefs about research that guided the formation of MSAN, offers two examples of how research helped to shape MSAN, and describes the role that research is playing in three current MSAN efforts.

The Minority Student Achievement Network

In 1999 the superintendents from Evanston Township High School, Shaker Heights (Ohio), Chapel Hill (North Carolina), Arlington (Virginia), Ann Arbor (Michigan), Madison (Wisconsin), and nine other districts formed the MSAN to close the persistent gaps in achievement between White students and African American and Latino students. Accustomed to accolades for their districts’ reputation for academic excellence, for an historical commitment to racial integration, and for strong parent and community support, the superintendents formed MSAN to draw attention and find answers to address a common problem they were not solving independently.

Closing the Gap Between Research and Practice

MSAN’s goal was to “discover, develop, and implement the means to ensure high academic achievement of minority students” (MSAN Program Description, 1999). Although the primary goal was to close gaps in student achievement, closing the gap between research and practice quickly emerged as an essential strategy. In direct contrast to the prevailing practitioner sentiments about research, MSAN leaders were positive, in fact hopeful, about the value of research. The MSAN superintendents had disaggregated their achievement data long before it was fashionable or required by the No Child Left Behind Act. They had led local initiatives to improve minority student achievement, but they were deeply concerned that, despite the good efforts of highly qualified staff, significant gaps in achievement remained. They candidly admitted

that they needed help—from each other and from researchers.

At the same time, the National Research Council (NRC) was focusing on the need for research that addresses the problems of practice: “the complex world of education . . . does not rest on a strong research base. In no other field are personal experience and ideology so frequently relied on to make policy choices, and in no other field is the research base so inadequate and so little used” (NRC, 1999, p. 1). Encouraged by leaders from the Spencer, Joyce, and MacArthur foundations and by NRC’s proposal for the Strategic Educational Research Partnership (SERP), MSAN leaders decided to “create a body of educational research that informs classroom- and system-level practice and helps eliminate racial achievement gaps” and to “disseminate and implement effective practices learned or developed by the MSAN to network members” (Lewis, 2003, p. 5).

Building MSAN

These ambitious purposes shaped the development of MSAN’s organizational structure. The Governing Board is composed of all MSAN superintendents. MSAN also created a Research Practitioner Council (RPC) composed of at least one representative from each member district. Charged with making the commitment to building a practitioner-driven research agenda, the RPC has developed relationships with advising researchers, reviewed and shared existing research, and developed a process for validating successful district interventions. MSAN’s work is supported by a small staff and a group of distinguished research advisers. MSAN was based at Evanston Township High School until 2007, when MSAN moved to the University of Wisconsin/Madison College of Education.

Research Shapes MSAN

MSAN began with an uncommon, even unconventional, belief in the power of research to find answers that combine the wisdom of

craft knowledge with the research-based knowledge. Because there was no model to emulate, two early activities—conducting the Student Survey and drafting the Race and Achievement document—helped us figure out how to merge research and practice.

MSAN Student Survey

The Student Survey played an important role in defining MSAN by helping us describe who we are and by identifying areas for research. Ron Ferguson, a research advisor, helped us conduct a survey to understand what students of different racial and ethnic groups were experiencing in school that might be affecting their achievement. In December of 2000, all districts surveyed over 40,000 students in grades 6–12 using the Ed-Excel Assessment of Secondary School Student Culture developed by John Bishop of Cornell University, along with five MSAN-developed items. The survey results provided a knowledge base on many topics: family characteristics, attitudes about school and achievement, course-taking patterns, conditions under which students work hard, and students’ understanding of teachers’ instruction and comprehension of assigned reading.

Both the survey process and its results shaped MSAN. The very act of agreeing to survey all secondary students contributed to the process of forming an organization as superintendents committed human and financial resources to conduct the survey. Then, the results reinforced our initial commitment to form MSAN because the data were strikingly similar across all districts. The survey findings included: (a) compared to White students, African American and Latino students reported lower grade-point averages, less understanding of teachers’ lessons, and less comprehension of assigned reading; (b) as a group, White students reported greater socioeconomic background advantages than African American and Latino students; (c) when asked about the reasons for working really hard in school, African American and Latino students were more likely to emphasize teacher encouragement and less likely to identify teacher demands than White

students; and (d) although White students are more likely to complete homework assignments, students in all groups value doing well in school and, in fact, spend about the same amount of time studying, even though African American and Latino students turn in homework less frequently (Ferguson, 2002).

These findings influenced MSAN's agenda and the priorities of individual districts. Because of the importance of teacher encouragement as a motivating factor for African American and Latino students (Ferguson, 2002), MSAN's research agenda included teacher and student relationships. Many districts decided to participate in the Tripod Project developed by Ron Ferguson to explore how to create encouraging teacher-student relationships; as a result, MSAN districts' now emphasize the building of student-teacher relationships as central to major instructional initiatives.

Seeking to connect these findings about relationships to measurable gains in student learning, MSAN leaders focused on literacy and mathematics. We read widely and met with leading researchers to synthesize the research on effective mathematics and literacy instruction. We became more knowledgeable about literacy and mathematics education, but we realized that we were no longer talking about race. To accomplish our goal as a network, we had to be explicit about where and how race and ethnicity were related to achievement in literacy or mathematics.

Race and Achievement: Beliefs and Knowledge

MSAN leaders turned to MSAN's Director of Research, John Diamond (2006), and to Mica Pollock (2001) to assist us in talking openly and honestly about race. Pollock's research in diverse schools documents how racial explanations that reinforce societal beliefs about race and achievement are shared in informal conversations but not in public forums. Determined not to fall into this recognizable pattern, we developed a statement of purpose entitled "What Is the Relationship Between Race and Achievement?" The two-page document describes the core beliefs,

summarizes the research-based evidence on what is known about the relationship between race and achievement, and establishes MSAN's goal of "ensuring that racial differences in achievement are eliminated while we improve the achievement of all students" (MSAN, 2003, p. 1).

The brevity of the document does not reflect the difficulty we had in reaching consensus. We struggled over both defining what research says and how research findings should be used. We addressed basic questions, such as why is there a gap, and what can schools do about it? We revisited the current and historical literature (College Board, 1999; Jencks & Phillips, 1988). We cited evidence that many factors—family background, income, social class, and parents' educational background—affect student achievement; but that race, when income is controlled, is a powerful factor (College Board, 1999), and that schools can make a positive impact on the achievement of students (Dana Center, 1999; Jerald, 2001).

In order to counter widespread inaccurate and racist beliefs about race and intelligence, the statement addressed beliefs as well as knowledge. We stated core beliefs, for instance, that "achievement is not innately determined" (MSAN, 2003, p. 1); and separately summarized the knowledge base, citing research that current gaps in achievement are not due to racial differences in innate ability (Nisbett, 1988).

We struggled the most with statements about the gaps in achievement when students first enter school. Determined to counter the historical pattern of blaming students and parents for gaps, we reworded the statement on the kindergarten skills gap many times. We wanted to recognize that all students enter schools with assets (Delpit, 1995) while also acknowledging that there are racial differences in the skills that schools value and measure. The final statement focused on the school's responsibility to recognize students' assets, to close the specific skills gaps in the early grades, and to reduce the gap that predictably widens as students go through school.

The document, adopted by the Governing Board in 2003, continues to influence our work. The process of clarifying both beliefs and research-based evidence serves as a guiding

principle for discussions in network meetings and in our schools.

The Roles of Research in Current MSAN Efforts

The Student Survey and the Race and Achievement document strengthened MSAN's resolve to bridge the research–practice gap. An examination of current efforts demonstrates how our original commitment to organizing and disseminating research-based knowledge has evolved to include three roles for research in our work:

1. organizing and disseminating research-based knowledge;
2. building the capacity to evaluate school, district, and network efforts; and
3. collaborating with researchers to conduct applied research.

Organizing and Disseminating Research-Based Knowledge

MSAN conferences, meetings, and other forms of convening and communicating are based on the theory of action that MSAN's role is to organize and disseminate the knowledge base on improving the achievement of African American and Latino students. MSAN conferences are designed to “hear from renowned educators and researchers whose work focuses on issues of race and achievement” (Ash, 2002, p. 1). MSAN holds an annual conference for teams of teachers, administrators, and board members, as well as an annual conference for student teams from each district. MSAN has also conducted regional meetings and cosponsored events with other organizations, such as the Institute for Educational Research and the Delaware Valley Minority Student Achievement Network.

At all MSAN events, participants hear presentations and talk with leading researchers, including Edmund Gordon, Gloria Ladson-Billings, Ron Ferguson, John Diamond, Uri Treisman, Mica Pollock, and Louis Gomez. Publications,

particularly the quarterly newsletter, feature stories about initiatives in MSAN districts and provide summaries of relevant research. Recently, MSAN began commissioning authors to write articles summarizing bodies of research; for instance, Martha Zurita (2005) wrote an invitational paper on improving Latino student achievement.

Although research is not likely to provide clear-cut answers to problems, MSAN leaders are in the habit of finding out what the existing knowledge base is as they develop local interventions. In fact, in a recent survey MSAN members rated *analysis or critique of research* as first or second among the services that they needed from MSAN.

Building Capacity to Monitor and Evaluate Efforts

In addition to learning from existing research, MSAN and its member districts are committed to building their capacity to use research. The goal-setting and validation processes are two examples of how MSAN is using research tools to monitor progress and identify interventions that are successful in improving the achievement of African American and Latino students.

Setting and monitoring goals. Over the last few years, MSAN leaders from the Governing Board and the RPC developed a set of common goals to guide and monitor network and district efforts to eliminate racial differences in achievement. The four goals are:

1. Literacy: all students will be proficient or above in reading on state tests in 3rd and 8th grades;
2. Mathematics: all students will successfully complete algebra by the end of 9th grade, geometry by the end of 10th grade, and advanced algebra prior to graduation;
3. College readiness: all students will graduate prepared to attend college; and
4. Attendance: attendance for all students will be at 95% or above.

Given the challenges of disaggregating the data for each indicator for each subgroup, and working with different local and state measures to assess proficiency in reading and mathematics, MSAN is looking forward to building upon the existing database by working with the Wisconsin Center for Educational Research to create a comprehensive approach to collecting and analyzing data from MSAN districts.

Validating process. From the beginning, MSAN districts sought to learn from each other, as well as from research. MSAN districts have created their own locally developed programs, such as Shaker Heights' MAC Scholars, a mentoring and academic support program for African American boys; districts have also adopted nationally known programs such as Advancement Via Individual Determination. To formalize the process for sharing the results of both home-grown and locally adopted efforts, MSAN has developed a validation process to identify programs that are proven to be successful. The validation process is a peer review process that includes a review of multiple years of achievement and other quantitative data and an on-site visit by MSAN representatives to gather qualitative data.

MSAN representatives recently completed the review of the Multiage/Multicultural Program in the Beechview Elementary School in Farmington, Michigan. This program integrates English-speaking neighborhood students with non-English-speaking students new to the country and has documented the positive impact on academic achievement by following students from elementary to middle school. MSAN expects to begin a review of Shaker Heights' MAC Scholars program. Because the changes that matter most are those that occur at the classroom and school levels, MSAN districts are eager to use their growing capacity to collect data and evaluate programs to identify and share successful interventions.

MSAN evaluations. The identification of promising interventions will, in the future, include conducting shared evaluations of commonly adopted programs in areas such as adolescent literacy. In the fall of 2006, MSAN convened

literacy leaders and research directors from nine districts using Scholastic's *Read 180*. We shared district program evaluations, discussed emerging issues, and began designing a common template for evaluating *Read 180* and other adolescent literacy efforts. By building our own capacity to evaluate programs at the district and at the network level, we hope to provide useful information both to our members and to other districts.

Conducting a Collaborative Applied Research

During the 2006–2007 school year, MSAN collaborated with the Charles A. Dana Center to address one of the most important problems in American education—the fact that many students, including many African American and Latino students, are not successful in algebra, the critical course for success in advanced math and science courses. The goal of this evolving project, currently called the AYD Initiative, was to create a comprehensive approach to algebra for ninth grade students who have previously struggled with mathematics. In addition to identifying the components of a strong curricular, instructional, and assessment design, the project focused on the social and psychological factors that affect student learning.

The decision to focus on social and psychological factors in a math program came both from research and from practitioners' craft knowledge. Research finds that the most promising approaches to improving the low performance of certain groups of students pay as much attention to the social forces operating in schools and in classrooms as they do to skill and knowledge development (Aronson, 2002; NRC, 2000). Research also provides evidence that social psychological interventions can have remarkably strong effects on engagement, as well as test scores and grade point average (Aronson, Fried, & Good, 2002; Good, Aronson, & Inzlicht, 2003). This research is supported by the Student Survey findings (Ferguson, 2002) that the social and emotional context of classrooms and schools is critically important for African American and Latino students in our racially diverse settings.

The project included a pilot program to create *Algebra Allies*, students upon whom algebra teachers can rely to model respectful engagement and academic success and thus shape the classroom culture during the school year. In the summer of 2006, teachers in two MSAN districts (along with teachers in Fremont, California) conducted a 3-week pilot summer course that explicitly taught incoming ninth-grade students about beliefs about intelligence, shared the behaviors and attitudes of successful math students, and built a classroom culture of shared learning. An evaluation of the summer pilot program indicated that the intervention positively influenced students' beliefs about the malleability of intelligence, reduced their anxieties, and prepared students to use positive self-testing strategies. In addition, students identified more highly with math, their sense of belonging to the math community increased, and their feelings of race-based stereotype threat decreased.

The AYD Initiative is a promising effort both because of its potential for impacting mathematics achievement and because of its unusually collaborative design. This project is evidence that MSAN's belief in bridging research and practice is well-founded. In fact, the project has many of the features outlined by SERP: (a) It crosses traditional disciplinary boundaries, bringing together researchers with expertise in mathematics with researchers who study social and psychological factors—such as theories of intelligence and stereotype threat—that affect student achievement; (b) it spans the research–practice gap, bringing together math teachers and school leaders with social psychologists and mathematics researchers; and (c) it utilizes a network of schools to disseminate successful instructional practices, arranging for teachers to observe each others' classes and to collaborate by sharing curricular materials and instructional strategies.

Conclusion

MSAN's commitment to closing the gap between research and practice remains as strong

as the commitment to ensure high academic achievement for all of our students. Because research has played important roles in shaping who we are and how we work together as a set of school districts, we continue to seek new ways to organize and use existing knowledge bases, to use research skills to evaluate and identify successful interventions, and to conduct collaborative research and development efforts to improve the achievement of African American and Latino students. We have reason to be hopeful about closing both gaps.

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