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# **Cultivating New Routines that Foster High Achievement for All Students**

**Ideas for Collaborating to Reduce Racial Achievement Gaps**

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Public school districts around the nation are organizing to reduce the gap in grades and test scores between black and Latino children on the one hand, and whites and Asians on the other. Some districts are proceeding on their own, others in multi-district networks. Over the past few months, I have participated in strikingly similar discussions with various members of four separate multi-district networks – all considering how their members might work as allies on closing achievement gaps.

Stated perhaps too simply, the ideal toward which all of these districts are aiming is that school achievement patterns should become independent of race or ethnicity. The immediate challenge is to begin designing, implementing and evaluating new projects and programs for pursuing this ideal and to begin reviewing the efficacy of what is already in place. Ultimately, the goal is not a collection of projects and programs, *per se*. Instead, the long-term goal is a set of *routines* in school communities that effectively and continually motivate and facilitate high levels of achievement among all students. However, in the near term, *making the transition* to new routines requires special programs and projects. Ideally, their incremental impacts on modes of teaching and learning will accumulate over the next several years into stable and more uniformly effective school and community regimes. It is these programs and projects that need to be designed, implemented and evaluated, as part of a social movement to break the link between race, ethnicity and achievement.

Every district is unique, with special advantages and challenges. Even if we assume that all are pursuing the same ideals, there is no reason to believe that all can or should pursue them using the same formula. On the other hand, many of the issues that they face in addressing achievement gaps are very generic. Hence, there should be great benefit from sharing in the knowledge building process and learning from one another's experiences.

The purpose of this paper is to offer some basic ideas for how action and research to affect achievement gaps might come together. I begin below with a poem called "Transformation," as a way to summarize what reformers across the nation are working against and trying to achieve. The rest of the paper builds on themes that the poem introduces. A list of related, more academic papers by the author appears at the end.

## **TRANSFORMATION**

*I started kindergarten  
Two or three big steps behind.  
Some classmates understood things  
That had never crossed my mind.*

*The kids who looked real different  
Seemed so smart (I can recall).  
Kids who looked and spoke like I did  
Didn't seem so smart at all.*

*Of course there were exceptions,  
But on mostly any day,  
It was clear those kids were doing best  
And we were just okay.*

*Our teachers liked them better  
'Cause they always knew the answers,  
So kids like me just tried to be  
Good athletes and great dancers.*

*The years went by quite slowly  
And most things just stayed the same,  
Until our principal decided  
It was time to change the game.*

*She hinted that the reason  
When those other kids did best  
Was that many knew already  
More of what was on the tests.*

*They learned it from their parents  
And from things they did at home.  
Much that I and my companions  
Never had the chance to know.*

*That had always been the pattern.  
Yes for years it was the same.  
But the standards movement came along  
To finally change the game.*

*Now that there's a new prescription  
For the way our school is run,  
Everybody's got new goals to reach.  
It's getting to be fun!*

*We're learning to get smarter  
'Cause our teachers show us how.  
They're all serious about it.  
Everyone's important now!*

*Time in class is so exciting  
That we seldom fool around.  
We might make a joke in passing,  
But we quickly settle down.*

*After school we do our homework.  
Often in our study groups.  
When we need them we have tutors  
And they give us all the "scoops."*

*If there's something that's confusing,  
It's a temporary thing  
'Cause the teachers love to answer  
All the questions that we bring.*

*All the counselors and teachers  
Work with parents as team  
'Cause they share the same commitment  
To connect us with our dreams.*

*I love the way things are now.  
It all just seems so right!  
We still play sports and we're still cool,  
But now we're also "bright."*

*That first day of kindergarten  
Some of us were way behind.  
But today I'm graduating  
In a truly different time.*

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## AN IMAGE OF THE CHALLENGE

We know from research, experience and common sense that achievement gaps have many causes. These include differences in **family and community processes** that support or impede school readiness, school-related motivation and cognitive development. They also include **features of the school environment** such as class sizes, instructional methods and materials, grouping and tracking practices, and sometimes even the condition of facilities. The following propositions constitute a stylized chronology of how achievement gaps emerge and evolve from kindergarten through high school.

- Children of different racial, ethnic, and social class backgrounds arrive at kindergarten with different types and levels of preparation for school and this produces **achievement gaps at kindergarten**. The patterns are standard enough that **teachers learn to expect them**. Although there are many exceptions, black and Latino children tend to rank behind white and Asian children. Within racial or ethnic groups children whose parents are better educated tend to do better. These gaps by race, ethnicity and social class exist **within as well as among schools**.
- Facing these gaps, **teachers and parents alike have limited repertoires to use in helping** the less well-prepared to catch up and may even function in ways that exacerbate initial differences. The problem of limited repertoires may be most severe for teachers who are not well versed in children's home cultures and languages, and who may therefore be at greater risk for misjudging children developmentally and teaching them inappropriately.
- As they grow older, **children become more aware** that achievement differences correlate with group characteristics and they **tend to accept stereotypical assumptions and assertions** about the sources and implications of such differences. They may **project these stereotypes onto themselves**.
- **Adults may reinforce children's self-perceptions and feelings of superiority or inferiority**, especially if teachers seem to favor high achievers or children from particular racial or social class backgrounds.
- Children who do poorly or receive inadequate reinforcement even when they work hard **may become less preoccupied with scholastic goals and seek other domains in which to excel**, such as athletics and social skills. They may accept peer norms that reinforce this inclination to de-emphasize schoolwork.
- No matter whether they are segregated in homogeneous groups of low achievers or mixed in heterogeneous groups among high achievers, **low achievers are often taught less effectively than high achievers**. Material and instructional approaches are often "dumbed down." The best evidence from experiments and quasi-experiments suggests that ability grouping makes

no difference *if the curriculum and quality of instruction for different groups is the same* (this latter condition often fails in real schools). Conversely, if children are well-placed and curriculum and instruction are tailored to fit children's current proficiencies, they learn more. Tailoring can be done effectively under a variety of grouping arrangements, but is often done haphazardly.

- **Some students in lower-level groups and classrooms are misplaced and should be at higher levels.** Placements can and should be reviewed and revised frequently, but often they are not.
- There remain some places in the U.S. where material resources in schools are grossly inadequate. In these places, material deprivation surely contributes to achievement gaps. By and large, however, **current inequality in school-level material resources appears to be at best a minor explanation for contemporary achievement gaps.**
- The most important reasons for contemporary achievement gaps **are historically based inequities associated with race and socio-economic status that have depressed the skills and commitments of some parents and teachers** to provide all children with high-quality opportunities to learn both at home and at school. More skill and commitment is devoted to the education of some children than others. We need greater capacity and stronger commitments in families, schools and communities in order to achieve the ideal of **high quality, tailored learning opportunities for all children from birth to adulthood.**

## **BUILDING SCHOOL COMMUNITIES THAT LEARN**

There exists today a national social and political movement for higher K-12 school standards. Within this movement there are many strategies (recipes) involving even larger numbers of potential policy changes, programs and projects.<sup>1</sup> What kinds of projects do districts need to do? How, as a group, might such projects comprise a coherent strategy? How can people structure collaboration within the movement?

A deceptively simple answer is that communities need projects that prepare parents, principals, teachers, counselors, tutors and children, to learn, innovate, teach and lead. In this way, communities can create both capacity and collective will to expand the supply and effectiveness of learning activities for children. Some projects and programs need to become routine, while others may need only to happen once. Also, there may need to be policy changes in some communities to make particular projects feasible. In any case, it can be said that **the core strategy here is to create a community that learns at every level in order to cultivate routines that serve children increasingly well.** The bullets

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<sup>1</sup> I prefer to make a semantic distinction between “project” and “program.” Specifically, a program involves multiple projects, usually of the same type, carried out simultaneously, sequentially, or both.

directly below indicate major roles in which people need to be routinely highly effective at helping all types of children to thrive academically and otherwise. These are followed by ideas for projects.

## **Roles to Cultivate**

- **Principals**. Principals need to set the tone for their schools and they need to provide both incentives and supports to help teachers perform their roles effectively. They need to ensure that all of the roles listed below are assigned appropriately and executed well.
- **Teachers**. Teachers need to have strong diagnostic skills for pinpointing student strengths and weaknesses and they need effective professional strategies for addressing them. (Note that teachers may be *especially* likely to lack such skills and strategies in dealing with students who do not speak standard, mainstream English.) Teachers should be responsive to children's particularities. This includes helping students to review mistakes on past assignments (or having tutors help) so that they can fill gaps in understanding that produced the original mistakes.
- **Tutors**. Well-trained tutors should be available to assist students both during and after school hours when necessary to supplement the services of teachers and parents. They should be in contact with teachers and parents to optimize the complementarity of their work.
- **Counselors**. Counselors should be available to supplement the support and leverage teachers and parents provide. Support includes helping students to solve personal problems. An example of leverage at the high school level includes helping them to identify potential colleges and sources of financial support.
- **Parents**. Parents need effective techniques for supporting homework completion and for enforcing appropriate academic standards. These need to fit the parent's own academic capacities and proclivities. For example, many parents need more help from teachers in knowing what standards to set for their children. At the same time, many minority parents have good reasons to suspect that teachers are not good judges of children's potential, so this is not a simple issue.
- **Students**. Students can support one another in a variety of ways. These include working together in study groups, encouraging one another to do well in school and helping one another to resist negative (especially peer) influences. Students also need to help themselves by being well rested and in the proper state of mind when they arrive in class.
- **Leaders at all Levels**. **Superintendents**, other **administrators**, **principals** and even some **teachers** need to be strong visionary leaders who inspire and motivate others to serve all children effectively. **Students at all grade levels** can be

encouraged to organize special projects to promote and facilitate achievement and to take appropriate responsibility for associated successes and failures. **Parents** can be encouraged to take initiative as well.

## **Transition Clusters (TCs)**

A “transition cluster” is a collection of projects that share a particular substantive focus for achieving *transitions to new routines*. The following are examples of TC titles and associated project ideas from which a community might select. Some of the listed projects would be most appropriate for particular grade levels, but many could apply for kindergarten through high school. For all of them, researchers could work with others in the school community to help with design, monitoring, documentation and analysis of outcomes and impacts. Decisions regarding which TCs and associated projects should be top priorities in any given community (or network of communities) would depend on local conditions. The list below is not in any particular order of importance and is intended only to be suggestive.

### **TC for Time Management**

- Involve the entire school community in a comprehensive review of ways that current time-use patterns may or may not be most appropriate for optimizing achievement. Topics covered might include the following.
  - For children. Time in leisure reading and other high-yield enrichment activities; adequate time for sleep; time watching television, chatting on the phone or computer, and other relatively low-yield leisure activities; time for extracurricular activities; time for responsibilities at home and paid employment.
  - For teachers. Time to contact parents; time to prepare for class; time to work on special projects (see below) with other teachers; time for one-on-one communication with students and teachers; time for tutoring during the school day;
  - For parents. Time to attend school events; time to help with homework or to recruit help; time to talk to their children; time to contact teachers.
- Have students keep time diaries for a week and then write a related essay about the quality of their time-use decisions.
- Mount a project to prompt first-time visits to tutoring sessions by students who need the help but have never attended.
- Devise special summer learning plans and projects in order to minimize summer learning losses. This is particularly a problem for children from less advantaged households.
- Encourage teachers and parents to pay attention to their own time use patterns and requirements and to seek assistance when important child-serving functions are going undone because time is insufficient. Responses for teachers might include arrangements by which counselors or even parent volunteers could help teachers in making calls to parents when teachers lack sufficient time to complete necessary calls. (Some teachers report that a single call to a parent is often sufficient to refocus a distracted or misbehaving student, but frequently there is not sufficient time to make

such calls.) Responses for parents could include assisting with child care that enables them to participate in various kinds of school-related events.

### **A TC for Student Motivation**

- A project to devise ways of minimizing the degree to which major new attention to the achievement gap backfires by heightening stereotype anxiety.
- A project to consider the role of individualized goals and standards. Should students be encouraged to measure themselves more against their own past performances and their own goals, and less against other students? Maybe. In any case, caring and knowledgeable adults can assist students in setting and working toward goals and also in celebrating their achievements.
- A project working with teachers, helping them learn to balance emotional support for students with appropriate pressures to perform. For example, many teachers feel sorry for disadvantaged students and give them lots of emotional support, but do not expect or push them to achieve at standard levels. (An administrator in one district called this support-with-no-pressure approach “misguided love.” She reports it as quite common in her observations of classrooms and she hears evidence of it in conversations among teachers.)
- A project to make it routine among teachers at all grade levels to have students speak in full sentences and complete thoughts.
- A project to help teachers become accustomed to talking explicitly about excellence.
- A project to devise new ways of rewarding student effort and performance.
- A project to facilitate e-mail communication between students and teachers and perhaps also with parents.
- A project to make it routine that students provide short written explanations for missed or incomplete homework assignments. This might provide an incentive to actually do the assignments, and it may also facilitate communication about impediments to homework completion. It might also help teachers to more accurately gauge student effort.
- Mount a review of messages in the school environment that could signal to some students that they are not college material. Simply renaming “standard” level courses as “college prep” is a way that some schools could move in the right direction.

### **A TC for Designing Assignments and Assessments**

- A project to review findings from cognitive science and what they suggest for teachers about effective ways of designing assignments and assessments to optimize learning.
- A project could help teachers learn to make project assignments more interesting and engaging by, for example, building on students’ own experiences. Teachers often don’t understand enough about black and Latino student’s experiences to be comfortable dealing with them. A special project to address the barriers might help.
- A project to help teachers appropriately judge and respond to the talents of students for whom English is a second language or for whom the dialect of English spoken at home is different from the one spoken at school. Such students may be much brighter than teachers assume and may be able to handle more advanced work on some tasks.

- A project working with teachers to practice designing assignments with graduated levels of difficulty embedded in them.
- A project on how to help students learn to work their way through mental blocks that they encounter when stumped by difficult material. This is among the issues covered under the heading “meta-cognition” – which means thinking about thinking.
- A campaign in which teachers across many classrooms have students do *concentration* exercises. As one high school teacher of Spanish told my colleague in an interview, “If they concentrate really hard then they get it.” Students need to develop the discipline of concentration. Many low achievers don’t have it.
- A project to get teachers accustomed to thinking of tests more as diagnostic tools and less as ways to simply to fill a score card toward a final grade.

### **A TC for Classroom Instruction and Management**

- Set up mechanisms through which teachers can advise one another or seek external advice, on ways of dealing with (a) students who are not keeping up academically and (b) students with behavioral problems. For example, it has been suggested that effective special education teachers may have techniques that other teachers would find useful in dealing with students who are not keeping up.
- A project to work with teams of teachers using Thomas Good’s list of differences in the treatment of “highs” and “lows.” Teachers need to send signals that communicate respect and high expectations for students, and they need to avoid signals that communicate the opposite. Based on his review of the literature, Good has identified a long list of ways that teachers treat “highs” and “lows” differently.<sup>2</sup> (Many things on the list seem to reflect teachers’ avoidance of engaging low achievers, due in part to time pressures.) Teachers could come together to discuss this list. They could observe one another’s classrooms and they could try to become more conscious of what their own classroom behaviors may tend to communicate.
- Institute feedback mechanisms akin to the course evaluations forms that students complete for college-level courses. This could be done in a way that only the teacher sees them, or there could be a more elaborate process.

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<sup>2</sup> Teachers treat "highs" and "lows" differently by: waiting less time for "lows" to answer; giving low achievers answers or calling on someone else rather than trying to improve their responses by giving clues or repeating or rephrasing questions; rewarding inappropriate behavior or incorrect answers by low achievers; criticizing low achievers more often for failure; praising low achievers less often than highs for success; failing to give feedback to the public responses of low achievers; paying less attention to low achievers or interacting with them less frequently; calling on low achievers less often to respond to questions; seating low achievers farther away from the teacher; demanding less from low achievers (e.g., teaching them less, accepting low quality or even incorrect answers, providing unsolicited help); interacting with low achievers more privately than publicly, and monitoring and structuring their activities more closely; grading tests or assignments in a different manner, in which the high achievers but not the low achievers are given the benefit of the doubt in borderline cases; having less friendly interaction with low achievers, including less smiling and fewer other nonverbal indicators of support; providing briefer and less informative feedback to the questions of low achievers; providing less eye contact and other nonverbal communication of attention and responsiveness; evidencing less use of effective but time consuming instructional methods with low achievers when time is limited; evidencing less acceptance and use of low achievers' ideas. Source: Good, Thomas L. 1987. "Two Decades of Research on Teacher Expectations: Findings and Future Directions." *Journal of Teacher Education*. (July-August) pp. 32-47.

### **A TC for Parenting Projects**

- A project to raise consciousness among parents about the negative consequences of frequent residential moves that cause children to change schools too often. This could include creating mechanisms to help families avoid moves, especially during the school year.
- Student responses to a survey in Shaker Heights indicated that help with memorization is one of the main ways that parents help children on school work. Simply encouraging more students to have parents help them in this way, including ideas for techniques to use, might be effective.
- Conduct a survey of parents regarding how they communicate with their children about academic standards, analyze the findings, then devise a number of ways to communicate the finds to parents.

### **A TC for Projects Addressing Youth Culture**

- A project, perhaps centered outside the school, to talk explicitly with adolescents about code switching and navigating among social settings. Also address what it means to sell out (or not) and what it means to engage in social resistance or oppositional behavior. The project might emphasize styles of speech, dress and body language (e.g., acting and looking tough).
- Projects to assist students in support of one another's achievement, including the use of study groups.
- Projects to leverage for academic purposes the influence that athletics and coaches have on youth.
- A project to help students focus on academic standards by answering the question, perhaps in an essay, a speech, or both, "How good is good enough?"
- Mount a project to encourage leisure reading.
- Prepare teachers to talk explicitly with students about the nature of intelligence and the different forms that ability takes. Emphasize ideas about its malleability – e.g., Carol Dweck's "effort mobilizes ability."

### **A TC for Course-Placement Projects**

- A project that reviews and modifies arrangements for involving parents in decisions about course taking, such as whether their children should enroll in honors/AP sections.
- A project to review and reform current practices for introducing 7<sup>th</sup> and 8<sup>th</sup> graders to language and math courses that put them on route to being properly prepared for college.
- Mount a review of special education placement practices and policies, both formal and informal. Include case studies of a randomly selected group of students from among the special education population. Review the appropriateness of their placements and potential strategies for maximizing their opportunities to learn. Mount whatever reforms seem warranted

### **A TC for Data-Assembly Projects for Measuring Performance over Time**

- Construct a detailed longitudinal data set for all students in the system in order to look for critical times (e.g., ages, grade levels) that performance trajectories change.

The same data could be used to study mobility patterns in and out of the system and the timing of special education placements.

- Collect additional data on family background to use as control variables in statistical work.
- Ideally, there would be curriculum-based diagnostic testing each September at every grade level and end-of-year testing each May or June. These tests could be short, designed by teachers, and focused on core learning objectives. Testing at the beginning and end of the school year is the only way to distinguish school-year learning gains from gains (or losses) that occur during summer vacation. (Note, however, that even some of the learning that occurs during the school year occurs at home.) For research purposes, one attractive design is to have two versions of the test at each administration. Half the students (randomly assigned) take a particular version as the base-line and the other version as the end-of-year test. To keep results unbiased, teachers should not grade tests from their own students.

One reader (Larry Kilian) has suggested that “there should be at TC devoted to enhancing students’ basic or prerequisite skills such as reading proficiency, vocabulary, writing and study skills.” My current thinking is that these are cross-cutting topics, to be addressed by a number of the TCs as suggested by the following matrix.

TRANSITION CLUSTERS	CROSS-CUTTING FUNDAMENTALS			
	Reading Foundations	Math Foundations	Other1	Other2
Time Management				
Student Motivation				
Designing Assignments and Assessments				
Classroom Instruction and Management				
Parenting				
Addressing Youth Culture				
Course-Level Placements				
Tracking Progress				
Professional Development				

## RESEARCH ON ENGAGEMENT IN PROJECTS

Success in the implementation of any project will depend on the propensity of actors to remain *engaged* in playing their various roles. Researchers can examine engagement patterns for both new and existing activities. Research findings about engagement can inform the work of leaders who take responsibility for helping people to become and stay engaged.

A large body of research can be distilled into a simple set of four conditions that together seem to promote engagement. The greater is the degree to which all four conditions are met for a person on a project, the greater is the degree to which we should expect to find that person engaged. The four conditions are: goals are clear; strategies are well understood; skills and other resource are sufficient for implementing the strategies; incentives are sufficient to motivate effort.

- Goals are Clear  
It helps people to know what they are trying to achieve. Engagement studies should probe the degree to which people can give clear statements regarding the goals of their work. Studies should also track the degree to which stated goals match among people working on the same project, and ways that project or program goals evolve as experience accumulates and situations change.
- Strategies are Understood (i.e., recipes for how to achieve the goal)  
A person needs to know at least one recipe for their role in achieving the goal(s). Engagement studies should probe the degree to which people can describe in detail the steps they need to take and how they expect their own roles to combine with others to produce the intended outcomes. In addition, studies should track what people learn over time about such strategies, and how. Most practical strategies involve a substantial degree of improvisational “groping along.” The degree to which groping along seems necessary, and a person’s attitude about doing it, can be important to understanding why that person seems actively engaged, or not.
- Skills and other Resources are Sufficient to Implement the Strategies  
People need to believe that they have or can acquire the skills and other resources required by the recipes that they plan to implement. Resources take many forms. The most generic are physical, financial, social and intellectual. Time is a resource as well. Social resources include allies. Ideally, allies will be trustworthy in at least four ways: (1) their motives, (2) their competence, (3) their dependability, and (4) their collegiality. Lack of trustworthiness on any dimension makes the ally a less useful resource.

Engagement studies should document people’s beliefs about what skills are necessary to the tasks at hand and whether they have such skills.

Similarly, it helps to understand people’s beliefs about whether necessary resources are actually available on acceptable terms (e.g., not too expensive).

Consider time. For example, teachers may not engage actively in tutoring students after school if they have children at home or elderly parents to care for; the *opportunity cost* of the time they might otherwise devote to tutoring may make tutoring after school too costly a thing to do. This could also be framed as an incentive issue.

- Incentives are Sufficient to Motivate Effort  
Rewards and penalties take many forms. Motivational psychologists study basic drives for such things as achievement, influence, affiliation and security. Economists focus on money and the “utility” of things it can buy. Psychologists tend to be less confident than economists that people are able to articulate the reasons for their behavior, and even economists are skeptical. Nonetheless, we should try to learn (and apply) as much as we can about what makes projects rewarding to their participants. There are more and less rigorous ways to study these matters, but I suspect that even the simplest surveys might be enlightening.

I propose that districts and the networks they join should actively promote engagement studies in order to understand and refine the implementation of the various programs and projects that they undertake.

## **OTHER POTENTIAL RESEARCH**

A long list of potential topics that research might cover is implicit in the project list above. In addition, the following are a few findings from past research that deserve to be more fully explored in work with schools and communities.

- **School Readiness**  
Findings. Both nationally and in most sub-national samples, there is a large black-white gap in school readiness scores by age five when children show up for kindergarten. In national data, well over half of this gap at school-entry can be predicted using measures of family background, including even *grandparents’* education.  
Research needs. Learn more about variations in parenting practices and how they affect particular measures of school readiness and subsequent achievement.
- **Preschool**  
Findings. National data show that preschool programs can help close the school readiness gap by kindergarten. Some studies suggest that much of this advantage remains through middle and high school, especially using achievement (as opposed to IQ) tests. However, the best study using a large nationally representative data set shows that black students have lost all the benefits of preschool by age 10, while white students retain them. The reasons are not well understood, but differences in the quality of schooling experiences are believed to be among the reasons.  
Research needs: We need to understand more about longitudinal patterns of achievement among children of different family backgrounds and how those

patterns seem related to various school and family factors that special interventions could target.

- **Parental Involvement**

Findings. Hundreds of books and articles tout the importance of parental involvement in children's schooling. There is a high level of consensus among researchers that children perform better in schools when their parents are well educated. There is also consensus that well educated parents tend to be more involved with school-related tasks such as homework. Based on this understanding, there has been a large number of special efforts to increase or change parental involvement. However, few studies provide reliable estimates of what would have happened *in the absence* of the programs and projects studied. Among the very few that do provide such estimates, findings are mixed concerning whether interventions actually produce higher student achievement.

Research needs. While we know that parents are important, we need better documentation regarding the degree to which special projects to increase parental involvement raise school achievement above what it otherwise would be.

- **Student Effort**

Findings. Racial differences in self-reports of effort (for example, in time spent doing homework) are relatively small in national data. At the same time, there may be differences in what children accomplish per hour on task. For example, in data for Shaker Heights that I am currently studying, white children in the same classrooms report higher homework completion rates per hour spent working on it. Hence, at least in this district, the problem may be less that black students spend less time than whites, than that they work less effectively. Explanations are difficult to sort out, but differences in self confidence, the propensity to do homework while watching television, and perhaps even vulnerability to stereotype anxiety may be elements of the story. We may know more in a few months based on analyses that are currently underway. Still, lots of questions will remain. For example, at least one study finds low correlations between teacher assessments of student effort and student self reports. If teachers consistently make mistakes in assessing student effort (over- or under-estimating it) there is likely to be lots of confusion and miscommunication.

Research needs. It might be useful to do some research on how well teachers estimate student effort levels, and how their estimates affect teacher-student relations that in turn affect effort and achievement.

- **Teacher Effectiveness**

Findings. Lots of research on school achievement points to the conclusion that inner-city schools serving poor children have trouble attracting and retaining as many highly skilled teachers as they need. Hence, when comparing student test scores from schools that serve mostly poor minority

children with schools that serve mostly upper middle-income white children, the academic proficiency of the teaching staff will usually be at least part of the reason for the achievement gap. Conversely, it is less clear how teacher quality affects achievement gaps among students who attend the same school. Evidence on teacher expectations indicates that teachers expect less of black than of white students, but not in a way that is inconsistent with a student's past performance. Evidence also indicates some differential treatment, but this may or may not be due to differences in student behavior. It is unclear how representative the available evidence is on these points and it is also unclear how much of an effect any teacher biases might have on the achievement gap.

Research needs. If great progress is to be made in narrowing achievement gaps, teachers will deliver most of the instructional services that make it happen. If some of what teachers do currently contributes to the maintenance or widening of the gap, those things need to change. Hence, it is important to learn more about teachers and to use what we learn to help them improve.

## **RESEARCH METHODS**

People face different professional demands. Officials from school districts need to show results in the form of smaller achievement gaps. Professional researchers care about the same issues, but need to do work that meets professional standards. A challenge in organizing achievement-gap research will be to allow all of us to do work that is interesting, professionally rewarding and ultimately good for children. Even among professional researchers, there are different orientations. We come from different professional communities, each with its own standards. If school officials are unwilling to cooperate in ways that allow us to meet such standards, or if interdisciplinary tensions among researchers are not managed well, there may be problems with sustaining involvement. It seems appropriate here to flag some of the most common sticking points and challenges to the kind of work that the field might try to do.

- Impact Studies. Impact studies measure the degree to which a program or project causes an outcome to be different from what it otherwise would have been in the absence of that program or project. In order to conclude with confidence that an intervention had an impact *when the answer is not already obvious to all concerned*, one needs (a) a good base-line measurement of the outcome index; (b) a good follow-up measurement of the same index (properly matched to the base-line); and (c) a way of estimating the “counterfactual.” The counterfactual is what would have happened in the absence of the project whose impact you are estimating. There are standard ways of doing this type of research (e.g., random assignment and discontinuous time-series analysis) that tend to be controversial, time and resource intensive, or both. There are many cases in which the stakes are not high enough to warrant the disruption that a good impact study would require. On the other hand, in the absence of the right kind of study, it may not be possible for research to produce clear and defensible impact findings. Practitioners are sometimes frustrated with the unwillingness of researchers to draw clear conclusions. Let us be clear that our

ability to do so will depend on the nature of the studies we agree to do and on our ability to implement them as planned.

There are a number of project ideas both in this paper and from other places that districts might choose to try. If there is a possibility that the district will later want researchers to make or endorse claims about impacts, it is important to postpone the initiation of the project until the impact study is in place.

- Diagnostic Studies. Diagnostic studies try to assess why things are happening as they are in the implementation of a program or project. They are often difficult to do well and work best when there is a well-specified “theory of change” to guide them. However, even when there is such a theory, the theory may be wrong. There is virtually never a way of determining the counterfactual for the “process” issues that such studies examine. Hence, there can be reasonable differences of opinion that are not easily resolved by data and analysis. We should anticipate that some such differences will arise in the context of achievement gap research. Capacity to work through them will depend on the ability of those involved to develop trust in one another’s motives and competence.
- Documentation of Patterns. The only reason for documenting patterns is to be able to reach judgements about what the facts are in the domain being documented. Often, instead of assembling data for everyone or everything in the relevant population, we use samples. If the samples are not representative – which is best achieved with true random sampling – then any generalizations made on the bases of those samples are likely to be systematically misleading. We should expect that at times there may be disagreements about the level of effort appropriate in attempts to achieve reliable, unbiased samples.

This list could go on, but I’ll stop. Generally, my expectation is that people will be able to reach agreements and work together effectively if they keep open lines of communication and do not lose focus on why their work is important.

## **CONCLUSION**

Separately as well as in network-based projects, we should expect school districts across the nation to launch a number of important activities over the next few years aimed at narrowing achievement gaps. Research can help by informing, monitoring, documenting and evaluating them. Hopefully, various action-research teams will begin to form in which people from districts come together with professional researchers based on mutual interests and shared commitments. Toward that end, this paper has offered a number of ideas that seem to this author worth considering.

The following are recent academic papers by the author that expand on issues raised above and provide many additional references to relevant literature.

“Why Racial Integration and other Policies Since *Brown v. Board of Education* have only Partially Succeeded at Narrowing the Achievement Gap.” In Timothy Ready, ed., *Achieving High Standards for All* (tentative title). Washington, DC: National Academy Press, Forthcoming.

“A Diagnostic Analysis of Black-White GPA Disparities in Shaker Heights, Ohio.” *Brookings Papers on Education Policy, 2001*. Washington DC: The Brookings Institution Press, 2001.

“Racial Test-Score Trends 1971-1996, Popular Culture and Community Academic Standards.” In *America Becoming: Racial Trends and Their Consequences*. Neil Smelser, William Julius Wilson and Faith Mitchell, editors. Washington, DC: National Academy Press, 2001.

"Certification Test Scores, Teacher Quality and Student Achievement," David W. Grissmer and J. Michael Ross, eds., *Analytic Issues in the Assessment of Student Achievement*. Washington DC: National Center for Education Statistics, 2000.

"Can Schools Narrow the Black-White Test Score Gap?" In Christopher Jencks and Meredith Phillips, eds., *The Black-White Test Score Gap*. Washington DC: Brookings Institution Press, 1998).

"Teacher Perceptions and Expectations and the Black-White Test Score Gap." In Christopher Jencks and Meredith Phillips, eds., *The Black-White Test Score Gap* Washington DC: Brookings Institution Press, 1998.

"Introduction: What Is Community Development?" In R. Ferguson and W. Dickens, eds, *Urban Problems and Community Development*. Washington DC: Brookings Institution Press, 1999. (With William T. Dickens)

"Reconceiving the Community Development Field." In R. Ferguson and W. Dickens, eds, *Urban Problems and Community Development*. Washington DC: Brookings Institution Press, 1999. (With Sara Stoutland)

"Social Science Research, Urban Problems and Community Development Alliances." In R. Ferguson and W. Dickens, eds, *Urban Problems and Community Development*. Washington DC: Brookings Institution Press, 1999.