National Urban Alliance Professional Development for Improving Achievement in the Context of Effective Schools Research

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INTRODUCTION

There are numerous reasons cited in the literature as to why an achievement gap exists between African-American, children of color and other children. The most prevalent are: the lack of political will by stakeholders to close the gap (Hilliard, 1991); a lack of belief in the capacity of children to learn (Delpit, 1995; Kohn, 1998); a belief that intelligence is innate and fixed and a conclusion that the educational disparity is a fact of nature (Singham, 1998; Hernstein & Murray, 1994); the gap is a result of economic disparity (Singham, 1998); and the existence of a cultural gap between teachers and children of color which causes missed opportunities for learning (Delpit, 1995). All but one of the reasons for the achievement gap makes some sense and by the nature of the problem cited, in turn, suggests courses of action. Sadly however, the courses of action often proposed to address the achievement gap for African-American children take students out of the mainstream and onto dead-end educational pathways. Hilliard (1998) reflects on the following:

> "The educational and socialization strategies being proposed for African children in the United States reveals a system...{which supports a}... widespread use of bootcamps for the delinquent and violence-prone; direct instruction for low-achieving students; special education for those who act out and who were not nurtured during their early schooling; compensatory education and minimum competency schools to help the masses meet the basics; vouchers and choice in order to give the affluent a way to take care of their own and to ignore other people's children..." (p.17).

The position taken by the authors in this article is that there are many success stories about dramatic achievement for children of color cited in individual schools throughout this country (Sanders, Rivers, 1996; Hughes, 1995; Sizemore, et al. 1982). The simple matter is this, many schools always have and do so now, reach traditional low performing students, and raise their performance to levels beyond average and even to excellence (Schmoker, 1999; Haycock, 1998; Joyce, et al. 1998). They do this without mysterious methods, programs or equipment, they do it mainly by exposing the poor and ethnic minorities to the same quality of instruction usually reserved for the more affluent and/or the dominant groups in the society (Kozol, 1991). Why does the puzzle persist in the face of the fact that there is evidence of dramatic school achievement for poor children? We believe that an often-cited quote of Ronald Edmonds provides the answer, "We can whenever and wherever we choose, successfully teach all children, WHOSE EDUCATION IS OF IMPORTANCE TO US." We also believe it is a matter of will.

The challenge is how we as a nation support not only success in the individual schools reported above, but success in entire school districts (Butler, Kahle, 1997; Resnick, Hall, 1998). The authors know of only a few instances where national reports suggest achievement has been dramatic for a district, e.g., San Francisco Unified School District, District 2 in New York City and the El Paso, Texas School District. What we propose is building on the common principles or factors that translate consistently across the examples of school success. This building process begins with the translation of best practice into application through consistent, cohesive, and sustained professional development (Hilliard, 1997; Allington, Cunningham, 1996). This is the heart and intent of this article, translating what we have learned through effective schools research and cognitive research into systemic application. The work of the National Urban Alliance for Effective Education (NUA) discussed below is just one example of how districts might build alliances with universities, districts, community, and telecommunication agencies and other key stakeholders to produce sustained and significant gains.

The National Urban Alliance for Effective Education (NUA) was established in 1989 to advance its members' passionate belief that "all students can be taught to perform the higher order processes and advanced learning tasks demanded by a changing global community" (National Urban Alliance, 1999, p.1). Delpit (1995) writes, "Sporadically we hear of "minorities" scoring higher in basic skills, but on the same newspaper page we're informed of their dismal showing in higher-order thinking skills" (xiv). Increasingly the public press is citing these gains in basic skills as areas of hope versus despair. While we applaud the gains made by students on basic skills, we are cognizant of the fact that as this country increases the gap between the haves and have-nots, we do not want African-American and children of color to be left behind because of the lack of higher-order thinking skills now required for success in higher-education and the workplace (Marsick, 1998; Resnick, Hall, 1998).

Functioning from 1991 - 2000 as an urban center located in Teachers College at Columbia University, the NUA has engaged in a wide range of varied activities that aim at helping school districts improve their policies and practices with respect to enhancing student performance (e.g., conducting system-wide instructional audits, conducting research, advocating for change with policy-makers and key stakeholders in communities, producing documentaries and television shows which disseminate best practice, and coordinating symposia which highlight success). The central activity in most of these collaborations has been to implement the NUA's Professional Development Model (NUAPDM) for improving students' comprehension, content performance, thinking, and literacy.

THE PROFESSIONAL DEVELOPMENT MODEL (NUAPDM)

The NUAPDM is based on the recognition that if all students are to meet high standards in mastering challenging material, teachers must understand the importance of "addressing the prior knowledge, the learning context, the linguistic and cognitive abilities, and the motivational patterns of all students" and must use the best instructional strategies for developing students' higher-order skills and understanding (National Urban

Alliance, 1999, p. 1). Using an instructional audit, NUA consultants first study how the school and system focus on instruction and provide engaged academic time for students. The audit establishes the setting and rationale for the program reflected in the NUAPDM. The NUAPDM is designed to improve students' comprehension and literacy, consultants in an NUA project go into schools to demonstrate lessons in reading, writing, math, science, and/or other skill or subject areas, and then coach faculty members in how to use these strategies themselves. In addition, the consultants help faculty in assessing instructional and organizational arrangements and in developing and implementing plans for improving these arrangements. The larger professional development framework within which a multi-school project proceeds usually includes four sets of first-year activities that are sequenced and carried out as follows (National Urban Alliance, 1999):

> The Workshops. A minimum of five large, cross-school workshops is held throughout the school year. A minimum of one-third of each school's staff is recommended to attend the workshops to ensure successful school-wide implementation of the strategies…. The workshops are a vehicle for initial presentation of the strategies. Each cognitive strategy presented is:
> - modeled in large and small group sessions
> - applied to real life problems and content that appear in both narrative and expository material
> - stresses the importance of content knowledge in the enabling skills of reading, writing and mathematics
> - linked to activities involving communication (writing and speaking) in curriculum areas
> - presented in the context of cognitive research
> - considered with implications for teaching and learning, curriculum development, and assessment
>
> The rationale is given for each strategy introduced, consultants model its use, and then participants are given time to practice it during the workshops or in their own classrooms. A strong metacognitive and affective component is part of each workshop, especially during the first year of the program. NUA consultants are particularly sensitive to instructional issues related to: ethnic and racial bias; gender bias; inclusion and different kinds of learners; attention to multiple intelligences; and ESL and LEP students.
>
> The Demonstration Lesson. Consultants visit the schools of participants to demonstrate to teachers how to apply the strategies presented at the large group workshops in classroom instruction, A maximum of two demonstration lessons is recommended for each visit. Before each lesson, a briefing meeting is held to explain what the lesson is about, the strategies that will be used, and the rationale for selecting strategies…. All on-site demonstration lessons by consultants:
> - take place in real classes
> - address the heterogeneous make-up of the average urban class
> - are conducted in front of a number of observers from the site school and partner schools
> - use authentic instructional materials

- are cued to existing courses of study and curricular demands
- vividly illustrate the significant differences in advanced level thinking that these cognitive strategies make possible for all types of urban students

After the lesson, a debriefing session is held to allow observers to describe and reflect on what they saw…. Observers are encouraged to question or even challenge the NUA consultant if unsure or uneasy about the application of the strategy. This is an important part of the visit since it allows teachers to engage in conversation regarding the instructional issues in their schools.
Another important task that consultants do during the visit is to review the school plan during the debriefing and correlate the NUA project with other school improvement efforts.

The Consultant Site Visit. On some occasions consultants may visit the schools to conduct activities that will help participants with individual or school-wide implementation issues…. [and that give participants opportunities] to deal with knowledge, attitudes, and expectations and their own biases related to gender, race, ethnicity, and the teaching of higher level thinking. The activities during the visit may include:

- review of the school improvement plan
- analysis of the school achievement data
- problem identification and problem solving with respect to school reform efforts
- classroom observation
- peer coaching
- development of integrated lesson plans
- workshops for parents

The Leadership Training. The literature is replete with studies which recognize the impact of principal support on instructional change. Principal support is also helpful in evaluating and extending appropriate modeling of instructional interventions. Recognizing this, the NUA works with participating principals to help them develop into instructional leaders. Although…. true educational reform starts with improved instruction in the classroom, individual principals and teachers have realized the need for organizational change. It is for this reason that NUA requires a participating school to send at least a third of its staff to the training and asks that the principal attend whenever he or she is not supporting released time for teachers, when taking over responsibility for classroom instruction on the days the teachers are engaged in training. A team of teachers who are trained together with the principal are more likely to use what they have learned than those who attend alone…. [Thus participants] are trained in:

- Team Building. Embedded in each workshop are activities for team building…. School teams are guided in identifying problems that may impede… instructional reform. Together, the team members analyze the data that reflect… [on their students' performance] and formulate a plan of activities that the team members agree to follow….

- Capacity Building. An important issue that NUA continually addresses is how to help schools build their own capacity for instructional and institutional reform. What happens when the NUA project ends? Do teachers revert to the way they used to teach before the project began? What incentive and support structures are put in place during the duration of the project that recognize the talents and efforts of the participants?…. As the project progresses and teachers gain expertise in the use of the strategies, they are invited to enter the NUA apprenticeship program. Apprentices are trained in the mission of NUA, the use of cognitive strategies to develop students' advanced skills, and, effective workshop delivery. Successful apprentices become consultants in their districts or join the NUA cadre of national consultants (pp. 4-7).

The first year and subsequent years of an NUA project also include a variety of related activities involving training for principals and other administrators and lead teachers, and conduct of special institutes for school- and district-level staff. After the first year the focus of the cross-district workshops (see above) shifts from introducing new cognitive strategies to issues involving thematic and interdisciplinary training, and additional and/or alternate teachers from the participating schools are selected to attend them.

INSTRUCTIONAL STRATEGIES

Underachievement among urban students is most evident and alarming with respect to comprehension and literacy skills (Levine, Levine, 1996; Delpit, 1995; Allington, Cunningham, 1996; Haycock, 1998; Cooper and Sherk, 1989; Harris & Cooper, 1985; Wheelock, 1999). Instructional strategies that NUA consultants help teachers learn to use effectively can be categorized within the five types of activities described below that are involved in developing comprehension and literacy (National Urban Alliance, 1999). These strategies are based on recent cognitive research on how people learn (Bruner, 1960; Newell, Simon, 1972; Feuerstein, Jensen, 1980; Bransford, et al., 1999). In addition, the strategies draw on an understanding that children bring different skills and strengths to the learning experience (Gardner, 1993; Gardner, 1993; Bransford, et al., 1999). The instructional strategies listed below under each heading are described elsewhere (Nessel & Baltas, 2000, Harris & Cooper, 1985). The reader should note that while the term strategy properly refers to a systematic plan for achieving a specific goal or result, the term skill has acquired a very elastic set of meanings. These meanings can range from the highly specific, such as eye-hand coordination, to the very complex, such as thinking and study skills, which may be thought of as virtually synonymous with strategy. The authors are suggesting that the reader thinks about a strategy as a skill in use, and in so doing, skills will not be neglected. What is intended in the proposed use of the strategies cited below, is that the teaching of reading comprehension (a skill associated with the acquisition of knowledge in any content-area) has to do with the relation of process to content: the dynamics of the teaching-learning situation, which must be recognized and implemented to achieve the desired learning outcome.

1. Constructing Meaning for Comprehension
   - Circle-and-Frame Map
   - Think Aloud
   - Graphic Organizers/Thinking Maps
   - Draw A Face
   - Key Word Strategy
   - Read-Talk-Write
   - Anticipation Guides
   - Paraphrasing
   - List-Group-Label
   - Paired Reading
   - Pattern Guides
   - Directed Reading-Thinking
   - Making and Checking Predictions
   - Readers' Theater
   - Semantic Mapping
   - Story Map
   - Strip Story
   - Team Webbing
   - Venn Diagram
   - Think-Pair-Share

2. Writing-To-Learn
   - Sentence Summarizing
   - Learning Logs
   - Reader-Response Journals
   - Possible Sentences
   - Making and Checking Predictions
   - Cubing
   - Dialogue Journals
   - Double Entry Journals
   - Know-Write-Learn
   - Read, Talk, Write
   - Imitation Writing

3. Speaking as a Learning Tool
   - Think Aloud
   - Think-Pair-Share
   - Draw-A-Face
   - Read-Talk-Write
   - Reciprocal Teaching

4. Word Analysis and Sight Vocabulary for Beginning Readers
   - Phonemic Awareness Activities- Highly Recurring Phonic Elements
   - Phonics Strategies, including "Street Phonics"
   - Repeated Readings

- Word Sorts

5. Vocabulary and Concept Development
   - Concept Formation
   - Vocabulary Notebooks
   - Word Walls
   - Dancing Definitions
   - Analogies

As noted above, the NUAPDM assists teachers in learning about and analyzing the appropriateness of strategies for improving comprehension and literacy. This approach is based on the premises that there is no one strategy or approach that is universally effective for all grade levels, subject areas, or classroom situations, and that a given strategy may be more suitable for one teacher or student than another. Consultants' experience in implementing the model with school faculties has indicated that teachers appreciate the opportunity to reflect on and make professional decisions regarding the selection of strategies that are appropriate for a particular lesson or unit. When teachers receive information, training, and follow-up assistance involving a range of strategies, many are willing to try new approaches and thoughtfully identify those that potentially are most beneficial for their particular classroom. Many participants soon become skilled in making such decisions and in planning and delivering lessons that can improve the comprehension and literacy of all students.

The instructional strategies that teachers learn to introduce or expand as part of the NUAPDM are intended to be used throughout a participating school. Since virtually all teachers use prose materials selected to facilitate learning of the subject being taught, the effectiveness of instruction in nearly all classrooms depends in part on students' capacity to comprehend these materials. From this point of view, every teacher is or ought to be a teacher of comprehension in his or her subject field.

IMPLEMENTATION AND RESULTS

Individual School Implementations

The basic approach followed in the NUAPDM was developed originally in the 1980's as part of an effort sponsored by the College Board in which developers worked with schools and school districts to improve instruction with respect to comprehension and literacy. (It should be noted that many of the implementations at this early stage included a major component in which using the Degrees of Reading Power Test, teachers learned to provide students with reading materials that are challenging but not frustrating.) This project was successful at numerous participating schools. Several examples are described below.

Apopka Senior High School. Located in a suburban area north of Orlando in Orange Count, Florida, Apopka is a comprehensive high school that enrolled approximately 2500 students in grades 9 through 12 when the College Board approach was introduced in the

1980's. Major components and activities in this implementation included the following (Levine and Sherk, 1990):

- A full-time Reading Resource Specialist was appointed to provide leadership and assistance to faculty in designing and carrying out school-wide efforts to improve students' comprehension and literacy.
- Comprehensive, continuing staff development was provided at the school site with respect to instructional strategies for improving comprehension and literacy.
- To a substantial extent, students were assigned to some classes broadly organized by reading comprehension level, i. e. classes in some subjects were designated as "Developmental", "Regular", or "Advanced" so that students at all levels could be more feasibly challenged and helped to improve their comprehension skills and students experiencing difficulty could receive help from the most skilled teachers in relatively small classes.
- A school-within-a-school unit was established to provide massive help for 9th grade students with severe learning or behavioral problems.
- Faculty received on-going assistance in frequently assessing students' functional comprehension level and the readability level of instructional materials, in order to provide appropriate materials for students.
- Supervisors emphasized teachers' use of instructional strategies for improving comprehension and literacy in assessing teachers' lesson planning and in evaluating their classroom processes and products.
- Much of the staff development effort involved helping teachers learn to carry out classroom action research focused on students' acquisition of learning strategies for improving their comprehension and literacy.

Improvements registered in students' comprehension levels at Apopka were impressive (Levine and Sherk, 1990). Gains for students from the end of the 8th grade to the end of the end of the 10th grade averaged about three years of growth. Perhaps more important, 9th graders who started with very low reading scores gained about four years in comprehension during the next three years—far beyond what can be attributed to regression to the mean. Many of the students in this category were minority students and/or low income students. Overall, what this pattern of growth means is that nearly all students entering the 10th grade had comprehension scores sufficiently high to perform adequately given good instruction with appropriate grade level materials. In addition, the vast majority graduated with comprehension skills required to obtain a relatively well-paid job with opportunities for advancement, or to succeed in postsecondary education.

Elizabeth Barret Browning Intermediate School 115. Intermediate School 115 is located in a high-poverty neighborhood in the Bronx borough of New York City. In the late 1980's, IS 115 enrolled about 800 students in grades six through eight. Major components and activities in this implementation included the following (Levine and Sherk, 1989):

- Most of the massive staff development efforts that were carried out focused on instructional strategies for improving students' comprehension and literacy.

Leadership and assistance to faculty in this implementation were provided by: a full-time Reading Resource Teacher/Staff Developer; consultants from the College Board; one-day-a-week service from a specialist at the Center for Educational Leadership; and an English teacher trained in Writing Across the Curriculum and released part time to work with other teachers.

- A mini-school was created which enrolled 160 at-risk 7th and 8th graders in classes with a maximum size of 22. The mini-school was staffed by eight subject-area teachers with a common preparation period, two technology teachers, an attendance facilitator, two "family workers", a guidance counselor, and a full-time director/teacher. Emphasis in the curriculum was on urban planning and architecture.
- Activities to improve school climate included establishment of a Peer Leadership Team, utilization of a consultant from the Center for Educational Leadership, participation in the Hispanic Research Center's "Hero-Heroine Program", facilitation of student government, conduct of classroom management workshops, establishment of a "captive lunch" period, student preparation and dissemination of booklets dealing with the Bronx and with cultural diversity, and other innovations designed to make learning meaningful and motivating.
- Organizational patterns and practices that were introduced to help provide assistance for previously-low-achieving students also included employment of six reading teachers and six reading paraprofessionals, maintenance of an 8:1 student-teacher ratio in classes for low readers, a seventh-grade class for students who were not promoted to the 8th grade due to low academic achievement, and placement of low-performing sixth graders in reading classes with two teachers.

Achievement gains at IS 115 exemplified the generalization that low achieving students in high poverty neighborhoods can and will perform much better academically if appropriate and vigorous action is taken to improve their comprehension and literacy. The percentage of 7th graders at or above the 50th percentile increased from 23% in the spring of 1988 to 41 percent in the spring of 1989. The comparable increase in the 8th grade was from 28% to 37%.

Multi-School Implementations

The NUAPDM approach also has been successful across groups of schools participating in several multi-school implementations that are briefly described below.

Prince George's County Title 1 Schools. The NUAPDM was introduced in the Prince George's County (Maryland) Public Schools in 1991. Supported in large part through Title 1 funding, the project initially involved two "tiers" of implementation (Grady, 1996):

- Tier 1 was a series of training sessions for school district Title 1 program specialists…. Each specialist is assigned ten schools, to which they provide technical support and program-wide information. During Tier 1 training

activities, specialists attended pre-service sessions where they worked on their skills as facilitators…. in accordance with the trainer-of-trainers model of professional development.

- Tier 2 activities were organized around workshop sessions for school staff: principals, [Title 1 building-level] resource teachers, Title 1 assistants and regular classroom teachers from project schools. Tier 2 workshops branched into three conceptual strands of activities, each focusing on classroom skills in the subjects of reading, writing, and mathematics. Participating school staff selected one of the strands for year-long participation. Each strand consisted of two days of orientation in October, three to four days of content-specific activities at three intervals during the school year, and a final day of summation activities in May.

  In the second year of the project, 1992-93, NUA and PGC Title 1 staff continued the workshop phase and began early school-based staff development efforts by introducing the school teaming concept. The program enrollment expanded significantly this year with the involvement of substantially more regular classroom teachers to the cohort. Also, the project partitioned the previously single reading/writing strand into separate reading and writing workshop series.

  In 1993-94, with a somewhat larger program enrollment, the project moved in earnest into the team building and capacity building phases of the NUA model…. [and the NUA] consultants geared their school development strategies to how far… [each participating school] had progressed in implementing the NUAPDM (pp. 7-8).

It should be noted that a variety of other school improvement interventions were initiated in the Prince George's County Public Schools just before or during the period that the NUAPDM was being implemented at Title 1 schools. For example:

- The district had been involved in an extensive system-wide application of effective schools research that provided a springboard for successful implementation of the PGC Title 1/NUA project.
- The district had implemented one of the most systematic and comprehensive efforts anywhere to reform instruction based on research dealing with the characteristics of unusually effective schools. Concepts emphasized in this research were drawn on in training administrators, assessing the performance of administrators and schools, planning and delivering staff development, devising testing procedures, interpreting the performance of low achieving students, and many other ways. Administrators who were in the district during this period and thereafter have expressed the view that attention to the effective schools approach was important in setting the stage for large achievement gains (Levine, 2000).
- Similarly, much work had been done to familiarize faculties with the Dimensions of Learning approach that places emphasis on acquisition of higher-order skills and provides teachers with guidance in helping students master them.

- The Comer School Development Program was introduced at elementary schools with high proportions of African American students.
- The district made extensive efforts to improve curricula and assure that appropriate lessons and materials were available to teachers. For example, specific lesson guidelines were prepared to make it more feasible for teachers of split-grade classrooms to deliver instruction effectively for diverse groups of students.
- At many schools, explicit and meaningful efforts were made to introduce materials and methods appropriate for multicultural and/or minority student bodies.
- The district became a national leader in introducing new technologies in schools and classrooms.
- The Title 1 program moved to hire certified teachers as opposed to para-professionals.
- The Title 1 program began to offer $1000 awards and other incentives to schools that met program goals.
- Some schools with low achievement received mini-grants to expand NUAPDM activities.
- Perhaps most important, Title 1 arrangements were modified to reduce pullout of students and instead provide in-class assistance, and Specialists from the Title 1 office worked diligently with a limited number of schools each to ensure that effective assistance was provided for low achievers in a larger classroom context in which learning opportunities for all students were improved.

As regards implementation of the NUAPDM, data collected for the first four years of the project in Prince George's County indicated (Grady, 1995; 1996) that:

- The 1991-92 school year started with 320 participants from 41 schools, and grew to more than 1000 participants from 61 schools in 1994-1995.
- Participants generally gave high ratings to the NUA workshops, e.g., on a scale of 1 to 4, the average rating by PGC participants of the NUA reading workshops was 3.65 and in math, 3.86.
- Students at participating schools made sizable gains in reading achievement. For example, CTBS reading scores at the 4^{th} grade improved by 3 NCE points in 1991-1992, 7 NCE points in 1992-93, 10 NCE points in 1993-1994, and a whopping 16 NCE points in 1994-95. Only at the 5^{th} grade, which was beyond the focused efforts of project developers and implementers, did the average reading scores decline somewhat. These results were not disaggregated by students' race or ethnicity, but since approximately 80% of students at participating schools were African American, the evaluation concluded that it "would be safe to assume" that achievement gains were "made by minority students" (Grady 1995, p. 1).
- Students eligible to receive Title 1 services made impressive gains in acquiring reading skills required to function successfully in their schools. Over the four-year period from 1990-91 to 1993-94, the percentages of students reading above the 18^{th} percentile cut-off for Title 1 eligibility steadily

increased from 26% to 51%. What is most significant is the movement of students from the 1st quartile to the 2nd and 3rd quartiles. Assessing these and other data on the implementation and impact of the NUAPDM project, a program evaluator explicitly acknowledged that many other positive interventions had been initiated to help Title 1 schools in Prince George's County, but concluded that the NUAPDM "appears to have had the most impact on the success of students" (Grady, 1995, p.2).

- Effective implementation of the NUAPDM appeared to be associated with particularly strong gains in students' reading performance. To examine this proposition, an evaluator analyzed reading scores at "schools which observers reported were ranked high on the NUA implementation scale" and found that among the 14 schools with the highest scores on "NUA reading and writing implementation, eight showed comparatively large gains in reading achievement" (Grady, 1995, p. 31). It should be emphasized that this accelerating rate of student "graduation" from the Title 1 program simultaneously made it more feasible for teachers to function successfully with classes that were now better prepared for grade-level instruction, and also enabled the Title 1 program to provide even more concentrated assistance to the reduced number of very low readers.

Ninth-Grade School-Within-A-School Units in Kansas City, Missouri. Designed for students reading substantially below grade level, ninth-grade School-Within-A-School (SWAS) units were operated at a number of high schools in the Kansas City Public Schools between 1983 and 1993 (Levine and Sherk, 1990). Depending on the school, the SWAS program provided four or five academic teachers and a full- or half-time coordinator to work with 50 to 100 students for most of the school day. In several schools, all or nearly all the students were African Americans. In addition to implementing the College Board professional development approach (see above) that later evolved into the NUAPDM, the SWAS program incorporated the following major components:

- Explicit selection of subject-area reading materials that were below students' frustration level for independent work but somewhat above their current instructional level for classroom instruction. The latter policy was based on the expectation that effective instruction using appropriate comprehension-development strategies will move students to the next level of performance in comprehending written materials.
- Consistent emphasis was placed on motivating students who previously had been failures in school to work hard in the classroom.
- Emphasis on linking learning across subjects in order to reinforce learning with respect to concepts and vocabulary.
- Selection of teachers primarily in terms of their capacity to work effectively with high-risk students.

Impact of the SWAS program on student performance varied somewhat from school to school, but the average student in several units gained from three to four years in reading comprehension during his or her year in the program. This is far beyond what

can be attributed to regression to the mean and to increased motivation to take the reading test. In effect, this pattern of growth prepared many students to function successfully in the tenth grade. Surveys of SWAS teachers found that they rated "Utilization of Comprehension Strategies" as an important consideration "contributing to the success of the program", along with "Small Class Size", "Matching of Students and Reading Materials", "Assistance from SWAS Coordinators" (at both the project and school levels), "Willingness of Faculty to Work Hard", "Coordination of Teaching Across Subjects", "Appropriate Selection of Students" [without severe behavior problems], "Flexibility in Implementation", and several other characteristics of the program (Levine and Sherk, 1990).

Indianapolis Public Schools. The Indianapolis Public Schools (IPS) Reading Initiative includes implementation of the NUAPDM at all 76 schools in the district. Initiated during the 1998-99 school year, this initiative involved nearly 800 teachers and 70 administrators at orientation workshops during the first year and approximately 500 additional teachers during the second year. Following the basic NUAPDM implementation plan, approximately 5 - 6 site visits per school were made by NUA consultants to provide demonstration lessons, coaching, and other services at the building level during the first two years of the initiative. Given the size of the IPS high schools, program planners doubled the number of visits to 10 – 12 visits per school.

While data assessing achievement impact of the IPS Reading Initiative are not yet available to us, preliminary indications at the end of the first year were encouraging. For example, an evaluation report (Wise, 1999) found that:

- Teachers and principals were overwhelmingly positive about the workshops, seminars, and school site visits conducted by NUA consultants. All project sessions were rated as Good, Very Good, or Excellent by 90% of the participants.
- The principals reported a high level of commitment to the project and this commitment got stronger over the year.
- More than 93% of the principals reported that their teachers understand, accept, and are using the instructional strategies. The level of teacher use matches or exceeds the expectations of 86% of the principals. This positive assessment … is underscored by the fact that most principals felt that the instructional strategies require significant changes for many teachers.
- The average teacher reported using two strategies between the workshops. All of the most frequently used strategies came from the project's plan and sessions conducted by the NUA consultants.

In addition, many central office officials responsible for the IPS Reading Initiative were positive about developments at the conclusion of the first year. For example, a letter from Superintendent of Schools Duncan Pritchett, Jr. to the executive director of the NUA stated that:

> In reflecting on the past year, my staff and I marvel at the changes we are beginning to see in our classrooms and the level of commitment of our teachers and principals. There is no doubt in my mind that we are improving the learning climate for our students and building a foundation for needed reform in how we view our students' capabilities, and how we teach them. Personally, I know of no

> other national research-based urban school reform effort that addresses systemic reform as we are seeing accomplished in the IPS/NUA project….
>
> What we believe may be a consequence of the IPS/NUA project is that many of our seasoned teachers with substantial years of experience are becoming reinvigorated and more optimistic about their work… [and are rejecting] the belief that poor children cannot learn the advanced skills necessary to enter the college of their choice and meet the new complex demands of the workplace….
>
> As a nation, we have succeeded in improving individual schools, but there are very few (if any) entire school systems… [that have succeeded in] dramatically improving student achievement on standardized measures, graduation rates, entry into higher education, and success in the workplace for all its graduates. Preliminary IPS data… [are encouraging and yet also suggest] to me the complex nature of the change process we are engaged in implementing.

ATTENDING TO THE CHARACTERISTICS OF UNUSUALLY EFFECTIVE SCHOOLS

Research on unusually effective schools is relevant in assessing the NUAPDM as a school reform effort that can improve the comprehension and literacy of at-risk students in urban school districts. First, in several respects the model exemplifies characteristics that are associated with unusual effectiveness. Second, schools that have implemented the model successfully have addressed the characteristics of unusual effectiveness. Illustrations of ways in which effective schools characteristics are apparent in the design and successful implementation of the NUAPDM are provided below.

Original Five Correlates of Effectiveness

The five characteristics of unusual effectiveness originally identified by Edmonds (1982), Brookover, and their associates included high expectations for students, strong administrative leadership, emphasis on student learning of basic skills, frequent monitoring of student progress, and orderly climate conducive to learning. Focus on these characteristics has been apparent at schools that have successfully implemented the NUAPDM, as in the case of orderly climate stressed in the Kansas City School-Within-A-School approach and frequent monitoring using the Degrees of Reading Power Test at Apopka High School. In addition, the NUAPDM helped to effectuate these characteristics by providing a common instructional focus that enabled staff to work together on the specifics of their development.

Practice-Oriented Staff Development at the Building Level

Practice-oriented staff development carried out at the school building level was identified as a characteristic of unusually effective schools (i.e., schools that have much higher achievement than most other schools enrolling similar groups of students) in a comprehensive review of effective-schools-related research published in 1990 (Levine and Lezotte). This characteristic is built into the NUAPDN and, indeed, is one of the model's defining element. We believe that more emphasis is placed on delivering staff development at the school site than is the case in any other major urban school reform effort in the United States.

Availability and Utilization of Instructional Support Personnel

This was another characteristic of unusually effective schools identified by Levine and Lezotte (1990), who noted that with "the possible exception of a tiny handful of nearly superhuman individuals assigned to very small elementary schools, principals require assistance from one or more instructional support persons if they are to function with adequate success as instructional leaders" (p. 22). This type and scope of assistance has certainly been apparent in successful NUAPDM implementations described above: Apopka High School and Intermediate School115 both had the equivalent of several full-time people delivering staff development and related technical support, many or most of the most rapidly improving schools in Prince George's County provided released time for in-school instructional leadership and received considerable technical support from both Title 1 Program Specialists and NUA consultants, and the 4-5 person teaching teams in the Kansas City School-Within-A-School Program received instructional assistance from a half- or full-time Coordinator as well as NUA consultants and 3 full-time instructional specialists who worked with 5 to 8 units (depending on the year) in the project.

Focus on Acquisition of Central Learning Skills, Culture and Challenging Content

Here, too, this characteristic of unusually effective schools (Levine and Lezotte, 1990) is a defining element of the NUAPDM approach for reforming education for at-risk students. As stated in the National Urban Alliance Briefing Notebook (1999), the NUA approach aims at developing students' mastery of complex thinking skills, including problem solving, decision making, critical and creative thinking. Clearly the acquisition of these skills are dependent upon many cognitive and social factors. Delpit (1995) speaks poignantly of the importance of culture, cognition, and contextualized learning experiences to support the acquisition of higher-order thinking by poor children and children of color. In this seminal work, Delpit describes how teacher attitudes toward different cultures can negatively affect student self-image, and how this lack of cultural sensitivity by teachers may adversely affect achievement by children of color. The author also notes that ". . . motivation in African-American children from low socioeconomic groups is influenced more by the need for affiliation than for achievement . . . {and} . . . that African-American interpretations of the environment determines the amount and kind of effort students will expend on classroom tasks" (p. 140). The central point is that cross-cultural confusions by teachers for students must be addressed if we are to see significant gains.

Emphasis on Higher Order Learning in Assessing Instructional Outcomes

In identifying Emphasis on Higher Order Learning in Assessing Instructional Outcomes as a characteristic of unusually effective schools, Levine and Lezotte (1990) noted that faculty at such schools "have found ways to collect and analyze data focusing on comprehension and other higher order learning, or at least have resisted testing practices that drive instruction toward overemphasis on low-level skills" (pp. 30-31). Successful early NUAPDM-like implementations carried out in association with the College Board usually used the Degrees of Reading Power (DRP) Test to help address this characteristic. The DRP has not been a component in most recent NUAPDM implementations, but the NUA still strongly encourages participating schools and

districts to focus assessment of student performance on higher order learning, and provides assistance to participants who move in this direction.

Active/Engaged Learning

This characteristic of unusually effective schools (Levine and Lezotte, 1990) again is a defining element of the NUAPDM approach. The basic thrust of the NUAPDM is to help teachers acquire instructional strategies that not only encourage but ensure active and engaged learning. The theoretical foundation for active learning is formed from decades of research which suggests that "…. Learning is interpretive and inferential; it involves active processes of reasoning and a kind of talking back to the world--not just taking it as it comes" (Resnick, Hall, 1998, p.100). Essentially, the instructional interpretations we have drawn from cognitive research has led the authors to consider numerous ideas for how reforms in classroom instruction can be framed so that teachers are given sufficient suggestions. One such strategy to support the translation of the broad cognitive principles outlined above is derived from developing relevance for student learning.

The use of authentic problems and projects supports the active processing of information by the learner for building knowledge. There are many appealing strengths to why educators should consider learning organized around authentic problems and projects that are frequently encountered in nonschool settings (Bransford, et al., 1999). Most important to consider is that learning is enhanced for African-American and poor students through the use of universal themes, which allow the activation of prior-knowledge and which set up clear purposes for the application of knowledge by the students. These themes also create connections between the reader and the text, enhancing reading comprehension (Baswell, 1988; Heine, 1991; Yolen, 1992; Wheelock, 1999). Examples of these themes which can help the learner activate prior knowledge and discover the relevance for processing text for comprehension are as follows: life and death, love and hate, good and evil, perseverance and surrender, loss and gain, purpose and aimlessness, making decisions, using your imagination, taking responsibility, appreciating cultural differences, facing challenges, daring to dream, accepting others. These themes are present in both expository and narrative texts and are applicable across all grades and content-areas. They exemplify John Dewey's vision, that school should be less about preparation for life and more like life itself (Dewey, 1963).

A strong base of research linking cognitive development to prior knowledge in learning emerged in the late 1970s and has been further examined through the 1980s and '90s (Langer 1982, Bransford et al. 1999). These studies concluded that, particularly when reading is the learning mode, students with much prior knowledge and engagement with a subject have less difficulty learning new material and retain more than students with inadequate or incomplete prior knowledge. Students also need the benefit of teachers who know how to access prior knowledge that the student might not be aware of and that might help them with the material to be learned (Cooper and Sherk, 1989; Cooper and Levine, 1999). An instructional approach based on cognitive research should also be framed on a balanced application of pedagogical theories. For example, in the area of reading, we would argue that those interested in sustained system-wide gains, steer clear of the ongoing controversy regarding those who advocate for phonics only in beginning reading and those who advocate only for whole language approaches. In a well developed advocacy for instructional balance, Resnick and Hall (1998) provide a strong rationale

for avoiding these polemics:

> The popular imagery, fostered by the way in which debates on reading are portrayed by the press, feeds a political version of this educational fight in which phonics is championed by social conservatives who value discipline and order in the schools and whole language is cast as the favorite of "soft" liberals.
>
> These portrayals are both far from what knowledge-based constructivism would prescribe. Cognitive research on reading makes it clear that phonemic encoding is essential to fluent reading (i.e., skilled readers make fluent use of the alphabetic code; they do not go directly from print to meaning) and that many children have trouble learning the code without direct instruction in it (pp. 102-103).

Unusually Effective Organizational Arrangements for Low Achievers

Whether they minimize or maximize pullout arrangements and group students heterogeneously or homogeneously or use some mixture of the two, unusually effective schools find a way to provide appropriate, concentrated help to previously low achieving students who they require to master challenging academic content (Levine and Lezotte, 1990). To do so, many such schools identify students at differing broad levels of previous achievement, and then initiate "leveling" arrangements so that it becomes more feasible than before to deliver individual and small-group assistance to students who need the most help (Levine and Levine 1999). Alternately, some emphasize assignment to heterogeneous groups but go to great lengths to keep class- and sub-group-sizes small, and to make sure that teachers are well prepared to help students with special needs (Levine and Levine, 1999). Recent research also indicates that effective schools maintain flexibility in devising and modifying basic organizational arrangements for teaching and learning, at least in the case of such schools that enroll high proportions of Limited English Proficient students (McLeod, 1996). Unusually effective schools that we described above in connection with implementation of the NUAPDM exemplified these kinds of sophistication and sensitivity to student needs in devising successful leveling arrangements for teaching at-risk students.

Emphasis on Guidance and Personal Development at Secondary Schools

Levine, Levine, and Eubanks (1984) identified several characteristics of unusually effective inner-city intermediate (i.e., middle and junior high) schools that go beyond the correlates traditionally apparent at elementary schools. These characteristics probably apply to inner-city senior high schools as well. After searching for years for effective inner-city intermediate schools, the investigators found several that could be described as unusually effective. One characteristic they had in common was that they assigned numerous staff to provide guidance for students and enhance their personal and social development. This characteristic appears to have been present at the two inner-city secondary school implementations of the NUAPDM-like model described above (Intermediate School 115 and the Kansas City SWAS unit); both went to great lengths to provide guidance services and personnel to enhance students' personal and social development.

High Institutional Expectations in Secondary Schools

Levine, Levine, and Eubanks also found that unusually effective intermediate schools in the inner city established and maintained rigorous academic and behavioral expectations throughout the school. All teachers participated in maintaining similar or identical requirements without allowing for exceptions, thus the investigators concluded that rigorous expectations were institutionalized on a school-wide basis to a greater extent than they generally had seen at unusually effective inner-city elementary schools. For example, at Bret Harte Middle School in inner-city Los Angeles, no student could be promoted to the next grade if he or she had a failing grade (and did not subsequently obtain a passing summer-school grade) in any subject, including so-called "minor" subjects such as art, music, and physical education. (Of course, faculty did many things to help ensure that students performed at a high level to obtain passing grades in the first place.) Again, this characteristic of unusual effectiveness may apply as well at inner-city senior high schools, and again it appeared to be present at the two inner-city secondary implementations (Intermediate School 115 and the Kansas City SWAS program) that brought about large achievement gains using an NUAPDM-like approach.

Doability/Manageability of Interventions

Several analyses of ambitious school reform efforts have indicated that the extent to which interventions are doable and manageable for teachers is a critical element in determining whether they bring about sizable gains in the performance of at-risk students. For example, Levine and Cooper, (1991) noted that:

> Because thinking-skills approaches require relatively large, complex, and difficult changes in the behaviors and attitudes of teachers and students, even more stress than usual should be placed on ensuring that innovations are manageable and implementable for teachers, and that prerequisites and antecedents of successful implementation are firmly in place. Concern for manageability and implementability should include attention to such considerations as planning time, class size, change overload, amount of paperwork, adaptability in participating classrooms, [and] compatibility with demands already placed on teachers…. (p. 406).

Elsewhere, these authors summarized the situation at schools that had been successful in implementing the College Board approach for improving students' comprehension and literacy (which later evolved into the NUAPDM), and reported that personnel at these schools had "implemented strategies to counter the predictable obstacles that often frustrate systemic change efforts" in order to make the approach more doable for teachers (Cooper and Levine, 1993, p. 97).

Similarly, Levine and Levine (1998) noted that some innovations are "basically nonimplementable in most situations because they are too complex to the point that they are counterproductive", and concluded that "doability" therefore is a foremost consideration in introducing major school reform projects (pp.2-3). Doability and manageability are particular concerns at schools with a high percentage of low-status students, because such schools already are overloaded dealing with problems related to concentrated poverty (Levine and Levine, 1996). Thus Mussoline and Shouse (1999) recently reported that implementation of restructuring

reforms (such as Independent Study, Interdisciplinary Teaching Teams, and Mixed-Ability Classes in Math and Science) at senior high schools with large proportions of low-income students is negatively correlated with student outcomes, whereas at high-income schools it has a small, positive effect.

By way of contrast, the NUAPDM has been made a doable and manageable intervention in schools—including high-poverty schools-- where it has been implemented successfully. As we pointed out above, this was done by providing substantial technical assistance to teachers, by introducing unusually effective organizational arrangements to make the teacher's job more manageable, and by providing ongoing staff development at the building level to make it easier for teachers to learn to use instructional strategies for improving students' comprehension, thinking, and literacy.

CONCLUSION

Ultimately the challenge facing those interested in eliminating the achievement gap between children of color and other children requires sustained and cohesive professional development for the educators serving the children. This will require that districts revisit what has been identified as a rather dismal track record for conducting in-service training or staff development (Allington, Cunningham, 1996). Traditional staff development approaches by districts, such as, one-shot workshops, sporadic in-service training which is highlighted by a "superintendent's day," workshop-type presentations conducted during stolen moments of a faculty meeting, staff retreats, after-school training, or even the establishment of a district-based professional development center, which provides a filter for introducing teachers to "new" ideas, have provided little evidence of success. What we have attempted to do within this article is to illustrate the complexity of implementing successful professional development interventions. Each of the research-based processes previously outlined is designed to provide a framework that can incorporate district-based interventions. It is not that traditional approaches to staff development or in-service training are inappropriate, it is that they may not provide a framework for developing the level of sustained change and cohesion required for significant achievement gains. Educational change begins with, among other things, a dialogue, and a careful review of the various reform practices chosen by central and school-based educators. Questions need to be answered regarding the broad theoretical and pedagogical principles common to each, and change overload for participating schools must be avoided (Fullan, 1991; Levine & Cooper, 1991; Allington & Cunningham, 1996). All too often NUA representatives have observed educators who some have called, "change junkies," i.e., those who utilize a checklist approach to school change, and who feel that as long as they are able to point to reform programs underway in their district or school, they are doing what is necessary for improved academic achievement.

Hopefully, what we have also accomplished in this article is to point out the complex nature of change and what is required for system-wide improvement. The process requires enormous commitment, leadership (both within and outside the school-district), adherence to those prerequisites of successful programmatic implementation identified above, and sufficient time for interventions to take-hold at the school and central levels. If we are to see the elimination of the achievement gap between children of color and other students, nothing less than a total commitment to this goal by all stakeholders in school communities, state departments

of education, and the federal government will suffice. Somehow the politics of educational change have to be minimized, so that the primary focus of educational reform is driven by the refrain: "what is best for all the children, and what evidence supports the intervention." Implemented correctly, effective school and cognitive research can support that goal.

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