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**ABSTRACT**

Research findings indicate that the Yale Child Study Center School Development Program (SDP) has led to consistent progress in academic achievement and school attendance from 1969 to 1984 in the New Haven (Connecticut) schools in which it has been used. This report evaluates SDP, which attempts to strengthen student academic and social skills in low income, predominantly minority schools. SDP has three components: intervention, training, and evaluation research. The program recognizes that the complex problem of inner-city, minority group schools have evolved because families of children from the lowest socioeconomic strata of society experience more stress than other families. In addition, educators are not trained to bring student development to the needed level. SDP tries to improve teaching and learning by addressing the underlying development and management issues in a school and focusing on two goals: (1) improving students' psychological adjustment and skills; and (2) improving the school climate. The intervention process consists of four components: (1) the mental health team, which provides guidance for the other three; (2) the school governance and management body; (3) the parents program; and (4) the curriculum and staff development program. This document provides a description of the SDP, including its historical evolution, intervention components and functions, training strategies and research findings. (PS)

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Yale Child Study Center  
 School Development Program  
 Developmental History  
 and  
 Long Term Effects

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## INTRODUCTION

The Yale Child Study Center School Development Program is a school improvement process which strengthens student academic and social skills in low-income, predominantly minority schools through a systems-level application of mental health knowledge, skills and sensitivities. There is suggested evidence that the program not only improves educational achievement but may also prevent or reduce the frequency and severity of emotional disorders and problems of coping for children--during their school years as well as when they become adults. If this can be demonstrated, the program can become an effective tool in our nation's effort to both improve education and reduce various social problems.

The School Development Program (SDP) has three components: intervention, training, and evaluation research. As described in some detail below (Section A), the intervention first took place in three elementary schools in New Haven, Connecticut, during the late 1960's and 1970's and is now being introduced throughout that school system, increasing at a rate of two or three schools per year. Intervention is also taking place in Benton Harbor, Michigan, and Stamford, Connecticut. A program designed to train educators to serve as intervenors or change agents and to use the intervention process model was initiated in 1980 and continues. Educators in the training program have been from New Haven, Benton Harbor and Prince George's County (Maryland) and can come to the program from anywhere in the country. The training is conducted both in the New Haven School System and at the Yale Child Study Center.

Evaluation of the SDP has been ongoing and is currently a major focus. Our original approach of carrying out general evaluations has recently

moved toward more detailed research to study the long-term effects of the intervention and to pursue other research questions.

The School Development Program is one of the longest running public school-university cooperative school improvement efforts in the country. It is one of the few programs based on both education and mental health principles. To our knowledge, it is the only education program which applies mental health principles at an organizational level larger than the classroom. The program has facilitated a high level of academic and social success among students, as will be reported below.

The program's overall strategy is based on the nature of the problem of teaching and learning in inner-city, predominantly minority group--black and Hispanic--schools. Stated briefly, this complex problem has evolved out of the reality that the families of children from the lowest socioeconomic strata of society experience more stress than other families. As a result, a disproportionate number of their children are underdeveloped for a school experience when they enter school or have skills that are functional in non-school settings but dysfunctional in school. On the other side, educators are not trained to create building-level organization, operations and programs designed to bring student development to the needed level. This gap between student needs and system conditions and services traditionally leads to student, staff and parent underachievement and/or failure. This often leads to a downhill course in school and life for too many students. Teaching and learning cannot be significantly improved until the underlying development and management issues in a school are addressed.

The remainder of this document provides a more detailed description of the School Development Program, including its historical evolution, intervention components and functions, training strategies and research findings.

A. Evolution of the School Development Program

Phase I: 1968-73

In 1968, two public elementary schools in New Haven were selected to participate in the School Development Program--Martin Luther King, Jr. and Simeon Baldwin. The student population at both schools was 99% black. Over 90% came from low income families, with over 50% of the families receiving "Aid for Families with Dependent Children." Students at both schools had very low scores on standardized tests in reading and mathematics. Both schools were faced with chronic and extensive behavior problems and poor attendance by both students and teachers.

Initial work with the schools involved a four-person mental health team from the Child Study Center, consisting of a psychiatrist (Dr. James Comer), psychologist, social worker and a mental health-oriented helping teacher. The team addressed the entire system of the school--a schoolwide, systems-level intervention--by facilitating cooperative administrator, teacher and parent program development based on mental health and child development principles. Within two years the overall human relations climate within the two schools had greatly improved and by the spring of 1973 there was a trend toward improved academic performance as well. At the conclusion of Phase I, the program was discontinued at Baldwin School for administrative reasons.

Phase II: 1973-75

Based on what was learned in the first phase, a second phase (1973 to 1975) concentrated attention on assessing SDP intervention components, identifying the areas most important for developing academic and psychosocial skills in high risk children, and planning the specific prevention strategies to be used in the schools selected to continue in the program. It had become apparent that problems of school adjustment and academic achievement could be reduced or prevented if addressed: (1) at an early period in a child's life (elementary school years) and (2) through an integrated, systems-level prevention effort.

Phase III: 1975-80

The SDP began a comprehensive intervention approach entitled, "A Social Skills Curriculum for Inner City Children" in 1975. The objectives were 1) to teach basic social (interactional, situational or social environmental management) skills, 2) to integrate the social skills with appropriate activities in the arts, and 3) to integrate all non-academic skills and activities with the academic program. The role of the Child Study Center was decreased as the school staff incorporated mental health, child development and child rearing perspectives and skills.

During this third phase of the program, the process was successfully field-tested at another elementary school in New Haven, Katherine Brennan. At both Brennan and King, the mental health team composition gradually changed from Child Study Center personnel to school-based personnel--the principal, school psychologist, social worker and special education teacher.

Like King, Brennan served low-income families and had a history of low

achievement scores, poor attendance and low staff and parent morale. The intervention components and functions described below were implemented at both King and Brennan during this phase. At both schools there was significant improvement in academic, social climate and staff development areas, as documented in Section C.

Phase IV: 1980-Present

The fourth phase began in the fall of 1980. A Mental Health Fellowship Program for Educators was added to the program. This training component, also called the "Leadership Development Program," is designed to give educators child development, mental health and intervention knowledge, skills and sensitivities. It enables these educators to return to their school systems as change agents, applying their skills without direct Child Study Center presence but with continued CSC staff consultation and support. In addition, the SDP Leadership Development component provides training seminars for New Haven school administrators. For example, the Pupil Personnel Services staff took part in training seminars which assisted them in beginning to function in a preventive, schoolwide systems-level fashion.

Another important step taken during the fourth phase of the SDP was the creation of the New Haven Urban Academy in 1980. As a result of the ongoing success of the program at King and Brennan Schools and the close working relationship which developed between the SDP director, Dr. Comer, and the New Haven Superintendent of Schools at that time, Dr. Gerald Tirozzi, a district-wide effort was developed to introduce the mental health process model to other schools. This effort was first administered through the Urban Academy, which disseminated the model by training

selected elementary school principals to develop the components in their schools. It has continued under the superintendency of Dr. John Dow (which began in 1984) as Project Excel, a program which focuses resources and training on 12 of the lowest achieving elementary schools in the district. Each of these schools has initiated some or all of the SDP process components, with on-going consultation from Dr. Comer and the school administrators he has trained. Thus, in New Haven the program has expanded its impact from two schools to an entire school system.

The Benton Harbor Area School System became involved in the intervention program in 1981 by sponsoring an educator from that city to be trained in the SDP Fellowship Program. Upon her return to Benton Harbor the following summer, the educator/change agent initiated the innovation process in that city's elementary schools. Since the beginning of the operational phase of the SDP in this replication site, 1982-83, detailed research has been carried out to document and assess the program's ability to: a) transfer mental health knowledge and skills to an educator/change agent and, in turn, to educator colleagues and b) improve the performance of students in areas of academic achievement, social coping skills and psychological adjustment.

This fourth and current phase of the SDP has also included expansion of the intervention into two additional school districts and modification of the program's training strategy. The intervention was introduced into the Stamford, Connecticut, school system during the 1984-85 school year. Beginning with one school (Stark Elementary), this district--which serves a primarily affluent white community--is seeking to improve educational opportunities for its low-income students, whose numbers are rapidly

increasing in several schools. Use of the SDP model in this situation will allow us to better understand its appropriateness in schools outside of urban and/or predominantly low-income setting.

The Prince George's County, Maryland, school district initiated its utilization of the SDP intervention process in 10 elementary schools at the beginning of the 1985-86 school year. The training strategy used to facilitate program implementation represents a change from our earlier strategy which was used with the Benton Harbor district. Rather than focus on a full year of training on a single change agent, we now offer a broader-based training design, including the following basic steps: (1) The person designated by a school district to coordinate or direct the SDP is given an intensive training session (4-6 weeks) in New Haven, working closely with Child Study Center staff, New Haven School District administrators previously trained in the program and school personnel and parents of participating schools. (2) This person returns to his/her home district to introduce the SDP components into that system by working with district-level and school administrators to shape those components around the specific needs and goals of the district. (3) Key personnel from the district--principals, social workers, psychologists, district supervisors, the Superintendent, curriculum directors, members of the School Board, or others--come to New Haven in small groups for brief (2-3 days) training sessions, which include discussion about all aspects of the model and visits to schools utilizing it. (4) On-going consultation and assistance is provided by Child Study Center staff to the district by way of written and phone contact, as well as periodic visits to the district for on-site discussion of implementation issues.

The training component of SDP includes another approach with less direct contact with the Child Study Center staff. This approach is being used by several school districts that seek to introduce SDP process components into their regular educational services. In Stamford, program implementation is taking place with occasional visits (3-4 times/month) by a CSC liaison consultant. In Philadelphia, planning activities are underway to introduce SDP components into that district with consultation by Dr. Comer through written and phone communication and visits to the district approximately once a month.

As indicated above, the fourth phase of the SDP also includes an emphasis on research to document and assess program effects. Research findings will be presented in Section C of this document.

#### B. School Development Program Intervention Process

The school intervention process developed by the SDP is a systems-level primary prevention approach which addresses all aspects of a school's operation, not a particular group of individuals, or any particular pre-targeted specific aspect of the school. The overall goal is to improve students' academic achievement by focusing on two subordinate goals: 1) improving students' psychological adjustment and skills, and 2) improving the school climate--the attitudes and interactions of staff, students and parents.

At its inception, the core of the intervention process was a mental health team of professionals from the Child Study Center. This mental health team provided the theoretical framework for the project's organization, management and activities. It applied knowledge, skill and sensitivity to facilitate the multiple human interactions which take place in

school settings. It transmitted a relationship, child development consciousness to parents and staff, and as a result, a climate which facilitated teaching, learning and child growth and development emerged.

One member of the mental health team, the social worker, served on the governance and management body of each school. Utilizing clinical knowledge and skills, the team member assisted that group in applying child development, personal, interpersonal and systems management skills to all aspects of the school. Together, the mental health team member and the school governance and management group developed, implemented and evaluated programs within the school to address issues of academic achievement, behavior and psychological adjustment, parent participation and staff development. In this way, the mental health team acted in a preventive, rather than a reactive way.

Mental health team members worked in the fashion of clinicians responding to the changing status of an individual patient. They did not rely on a fixed set of intervention strategies or pre-determined time tables, but rather on a process geared to respond appropriately to the particular and changing needs, resources and goals of the school, as identified by staff and parents. This was done through the coordination of existing programs. As school functioning reached improved levels, activities were evaluated, modified, eliminated or elaborated to meet the new needs and opportunities that necessarily developed.

The mental health team did not attempt to directly modify the behavior of school staff, parents or children. Rather, it facilitated successful program implementation through the application of mental health knowledge and skills. In turn, the school climate, parent, staff and student

performance improved. This new atmosphere created higher levels of confidence and expectation among all involved and, in turn, an upward spiral of staff, parent and student performance.

Several specific examples include: The mental health team assisted the governance and management body in creating orientation programs for transfer students and parents which greatly reduced student anxiety and resultant behavior and performance problems. It created "Crisis Centers" and "Discovery Rooms" where children having problems could go for extra help in coping with psychosocial or school adjustment problems and demands. The mental health team provided the rationale which led to a "Two Years with the Same Teacher Program" which decreased discontinuity and behavior problems and increased social and academic achievement for many children. It provided the knowledge and skill needed to develop a coordinated, integrated academic, arts, and social skills curriculum which systematically promoted positive child development along critical lines which are often underdeveloped in low income children--speech and language, cognitive, psychoemotional and social-ethical areas of focus.

#### Intervention Components and Functions

There are four basic components in the school intervention process developed by the SDP and now functioning in 12 New Haven and 7 Benton Harbor, 1 Stamford and 10 Prince George's County schools. As discussed above, the primary component is the mental health team, which provides guidance and support for the other three: the school governance and management body, the parents program and the curriculum and staff development program. Mental health teams are now made up of school-based members--the principal, social worker, psychologist and special education

teacher--although they maintain contact with the Child Study Center through on-going consultation.

The four intervention components and how they function are described briefly below:

1. The Mental Health Team

- a) works with the governance and management body to enable it to base its academic, social climate and staff development programs on mental health, child development principles;
- b) facilitates the many interactions between parents and school staff to improve the social climate and cooperation throughout the school community;
- c) works with classroom teachers and parents to identify children who need special services;
- d) sets up individualized programs for children with special needs, using the school's special education facilities and staff and other school-based or outside services as necessary and possible;
- e) works with classroom teachers to develop classroom strategies to prevent minor problems from becoming major;
- f) offers on-going consultation to all school staff to bridge the gap between special education and general classroom activities;
- g) provides consultation and training workshops to staff and parents on child development, human

relations and other mental health issues.

**2. The School Governance and Management Body**

The school governance and management body includes the school principal, a mental health team member and representatives selected by teachers and parents.

This group:

- a) meets on a regular basis to carry out systematic school planning, resource assessment and mobilization, program implementation and program evaluation and modification;
- b) establishes policy guidelines in all aspects of the school program--academic, social and staff development;
- c) works closely with the parent group to plan an annual school calendar to integrate social, academic and staff development functions;
- d) works to facilitate social skill development and academic learning.

**3. The Parents Program**

The parents program assists and encourages parents to:

- a) participate in the general parent-teacher membership group, which plans and implements social and extracurricular activities (in cooperation with the governance and management group) in support of the school academic, social and psychological development goals for students;

- b) select two or three members to serve on the governance and management group;
- c) assist classroom teachers for special events or field trips;
- d) become more closely involved in their child's education through parent-teacher conferences, home learning activities or special classroom visits;
- e) address issues of personal or family development through workshops or discussions on topics of importance to parents.

4. The Curriculum and Staff Development Program

The curriculum and staff development program focuses on the specific needs of teachers, although parents and mental health team members are included in the planning and implementation of the specific activities. This program:

- a) integrates academic, arts, social and extracurricular activities into a unified curriculum;
- b) encourages teachers to develop special curriculum units in skill areas most needed to underdeveloped student populations--government, business, health and nutrition, and leisure/spiritual time activities;
- c) organizes and facilitates periodic workshops (for teachers and parents) based on identified needs and program objectives at the building level rather than central office level;

d) develops new skills in areas such as teaching based on child development principles, positive teacher-student relations, teacher-parent cooperation or reading and mathematics teaching techniques and materials.

C. Research Findings

1. General Progress at Original Intervention Schools

Our intervention model was developed in two pilot programs--at King and Brennan Schools--between 1968 and 1975. The fully elaborated intervention was utilized between 1975-80 at these schools. As planned, our Child Study Center Staff has not provided direct services to the schools since 1980, but provides indirect support whenever needed. The intervention techniques have been internalized by school staffs and the program is now being carried on by them.

King School has approximately two hundred eighty students and Brennan School approximately three hundred. Brennan serves a low-income housing project and King ranks approximately twentieth of twenty-five schools on the New Haven School System "affluence indicator." Since 1975 King School has not had a voluntary transfer. One teacher was recruited away for a new program and returned, at her request, the next year. Two teachers have been promoted to positions outside the school. Brennan School has not had a voluntary transfer since 1975. A teacher lost to Brennan because of a temporary decline in the school population requested and received a transfer to King and replaced one of the teachers promoted out of that building.

The same principal was at King for fourteen years until he went on a sabbatical leave to work with us at the Child Study Center. He is now attempting to implement our model in another school without our direct support. The principal of Brennan School from 1975 to 1980 spent a sabbatical year with us at the Child Study Center in 1980-81. He is now a Regional Director in the New Haven School System with responsibility, in part, for disseminating our model. Improved achievement at Brennan has continued despite several lengthy absences of the new principal due to personal problems. Both schools use the same texts, equipment, and curriculum utilized throughout the city. According to census tract data the socioeconomic level of the two communities served by these schools has remained the same over the last ten years, although it is the subjective impression of the school staffs that the SES level has in fact declined.

The tables which appear below document the consistent progress made at both King and Brennan School in areas of academic achievement and school attendance from 1969 to 1984.

TABLE 1

Mean Grade Equivalent Scores  
in Reading and Math\*

4th Graders at King and Brennan Schools

KING SCHOOL

<u>Year</u>	<u>Date</u>	<u>Norm Score</u>	<u>Actual Score</u>	
			<u>Reading</u>	<u>Math</u>
1969-70	Oct. 69	4.2	3.0	2.9
1977-78	Oct. 77	4.2	3.4	3.7
1978-79	Oct. 78	4.2	3.6	3.9
1979-80	Oct. 79	4.2	3.9	4.0
1980-81	April 81	4.8	4.5	4.8
1981-82	April 82	4.8	4.4	4.9
1982-83	April 83	4.8	5.2	4.9
1983-84	April 84	4.8	5.5	5.5
1984-85	April 85	4.8	5.1	5.4

BRENNAN SCHOOL

1969-70	Oct. 69	4.2	3.1	3.5
1977-78	Oct. 77	4.2	3.2	3.2
1978-79	Oct. 78	4.2	3.4	3.6
1979-80	Oct. 79	4.2	3.5	3.7
1980-81	April 81	4.8	4.2	4.3
1981-82	April 82	4.8	4.2	4.2
1982-83	April 83	4.8	4.8	5.1
1983-84	April 84	4.8	5.4	5.9
1984-85	April 85	4.8	4.5	5.3

\*1969-70 scores are from the Metropolitan Achievement Test; all other scores are from the IOWA Test of Basic Skills.

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Data source: "Report on Achievement Test Results," prepared annually by the New Haven Public Schools Office of Research, Evaluation and Planning.

**TABLE 2**  
**KING SCHOOL - Grade 4**  
**Standardized Test Scores**

<u>Year</u>	<u>Test Administered</u>	<u>Number of Months Below National Grade Level Norms</u>	
		<u>Reading</u>	<u>Math</u>
1969-72	Metropolitan Achievement Test	19 <sup>*</sup>	18 <sup>*</sup>
1973-76	No Testing	--	--
1977 (May)	Metropolitan Achievement Test	9	5
1978 (May)	Metropolitan Achievement Test	8	3
1978 (May)	IOWA Test of Basic Skills	6	3
1979 (May)	IOWA Test of Basic Skills	2	2
1979 <sup>**</sup> (October)	IOWA Test of Basic Skills	2	2

In 1979 a total Language Score was computed on the IOWA Test of Basic Skills. King 4th grade students scored at grade level.

\*Average based on scores during the three years indicated.

\*\*For results since 1979, see Table 1.

TABLE 3

**Basic Academic Skills Evaluation (BASE)<sup>\*</sup>**  
**Third Grade Students at M. L. King and K. Brennan Schools**  
**March - 1983**

	<u>Percentage of Objectives Mastered (Rank)<sup>**</sup></u>							
	<u>Math (Rank)</u>		<u>Reading (Rank)</u>		<u>Language Arts (Rank)</u>		<u>Composite (Rank)</u>	
<b>King School</b>	91	(4)	84	(7)	85	(5)	87	(5)
<b>Brennan School</b>	82	(12)	75	(13)	83	(8)	80	(10)
<b>Citywide</b>	82		77		77		79	

\*The BASE is the criterion-referenced test developed for New Haven Schools and given to 3rd and 6th grade students. The evaluation for third grade students (BASE-3) measures the level of mastery for 22 mathematics objectives, 21 reading objectives and 24 language arts objectives.

\*\*Based on 25 elementary schools in New Haven.

**TABLE 4**

**Academic Achievement and Attendance  
by Socioeconomic Level  
May 1979**

<u>School</u>	<u>% White</u>	<u>Median G.E.* (4th Grade)</u>	<u>Achievement Rank</u>	<u>% AFDC**</u>	<u>Affluence Rank</u>	<u>% Absences</u>	<u>Attendance Rank</u>
Hooker	79.3	57.4	1	7.5	2	6.3	4
Edgewood	90.7	52.8	2	6.7	1	5.9	3
Davis	63.6	49.2	3	12.6	4	7.4	8
Jepson	80.9	47.6	4	33.8	8	8.0	13
Woodward	94.9	47.0	5	19.1	6	4.9	1
Nathan Hale	97.2	43.7	6	11.5	3	6.8	7
Beecher	70.1	42.5	7	16.3	5	6.7	6
Rishop Woods	77.8	40.9	8	20.9	7	7.8	11
Clinton Avenue	33.3	37.3	9	52.3	20	10.5	24
M.L. King	1.0	35.8	10	52.7	21	5.5	2
Strong	56.1	34.7	11	50.9	17	13.4	27
West Hills	7.0	34.5	12	56.1	24	8.4	16
Helene Grant	0.3	34.2	13	59.7	25	8.9	19
Kimberly	18.0	33.4	14	45.1	11	10.0	22
East Rock	45.6	33.1	15	44.7	10	9.4	21
Dwight	2.0	32.8	16	47.1	14	8.8	17
Sherman	7.6	32.7	17	52.7	21	8.3	15
Lincoln-Bassett	0.0	32.3	18	46.7	13	7.8	11
Hill Central	5.2	32.2	19	51.2	18	9.2	20
Prince	1.4	32.0	20	47.1	14	8.8	17
Barnard	19.9	32.0	20	46.6	12	8.2	14
Conte	7.5	31.4	22	60.4	26	10.2	23
Quinnipiac	46.7	31.3	23	36.6	9	7.4	8
Winchester	1.2	31.0	24	60.5	27	6.4	5
Brennan	0.3	30.1	25	50.2	16	7.4	8
Truman	10.6	29.9	26	54.9	23	12.2	25
Welch Annex	4.8	29.8	27	72.6	28	12.2	25
Scranton	0.8	27.7	28	51.3	19	14.5	28

\*Scores from the IOWA Test of Basic Skills; expected score is 49.0 (4th grade, 9th month)

\*\*Families receiving Aid to Families with Dependent Children  
(1979 is the only year for which achievement-affluence data were compiled by the Office of Research and Evaluation.)

Data compiled by Dr. Martin Klotz, Coordinator of Research and Evaluation, New Haven Public Schools.

**TABLE 5**  
**Student Attendance**

**Average Percentage in Attendance:  
M. L. King and K. Brennan Schools**

**1979 - 1984**

<u>Year</u>	<u>All Elementary Schools</u>	<u>M. L. King (Rank)</u>	<u>K. Brennan (Rank)</u>
1975-76	90.3	92.9 (6)	91.1 (14)
1976-77	91.2	94.5 (2)	92.6 (8)
1977-78	90.3	93.0 (4)	91.7 (11)
1978-79	91.0	93.8 (3)	93.3 (7)
1979-80	90.8	93.6 (4)	93.7 (2)
1980-81	90.6	94.2 (1)	91.3 (13)
1981-82	88.6	94.1 (2)	93.5 (4)
1982-83	88.8	95.0 (1)	93.0 (5)
1983-84	90.4	94.1 (2)	92.4 (7)

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**Data Source: Office of Research and Evaluation, New Haven Public Schools**

## 2. Pilot Research Study of Intervention Effects (1982)

A pilot research study was conducted in 1982 to gather preliminary data with which to assess the effects of the SDP intervention. Forty-eight (48) seventh grade students attending Jackie Robinson Middle School were included. Half had attended King Elementary School and half had attended a non-intervention elementary school. The students from King had attended that school between 1975 and 1980, the period of the fullest elaboration of our intervention approach. Students from both elementary schools were from families within the same socioeconomic status, as indicated by census tract data.

Table 6 indicates significant differences between the two sample groups in each of the three main skill areas measured by the IOWA Test of Basic Skills--language, work study and mathematics. Students who had attended King School have consistently higher scores.

TABLE 6

Grade Equivalent Scores of  
King and Non-King Students,  
IOWA Test of Basic Skills (1982)

LANGUAGE SKILLS

<u>Subscale</u>	<u>King</u>	<u>Non-King</u>	<u>Significance Level*</u>
Vocabulary	6.875	5.121	****
Reading	7.283	5.600	****
Spelling	7.517	5.379	***
Capitalization	7.504	5.017	****
Punctuation	7.954	5.796	****
Usage	7.896	5.179	****
Language Total	7.695	5.346	****

WORK-STUDY SKILLS

Visual Materials	6.579	4.958	**
Reference Materials	7.283	5.971	***
Work Study Total	6.954	5.462	***

MATH SKILLS

Math Concepts	7.254	5.938	***
Math Problem Solving	7.117	5.729	**
Math Computation	7.279	6.488	**
Math Total	7.217	6.050	***

COMPOSITE	6.896	5.562	**
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\*Levels of significance:

- \* < .05
- \*\* < .01
- \*\*\* < .001
- \*\*\*\* < .0001

### 3. Current Research Activities and Findings

During the past two years, research on the SDP included analysis of data from New Haven and Benton Harbor. In both sites, studies were conducted in the spring of 1984: in New Haven to identify and assess the status (academic and school adjustment) of a group of middle school students who had attended elementary schools using the SDP model; in Benton Harbor to compare the four SDP schools with four control schools which were not using the SDP process.

Findings from the New Haven study indicate that SDP students scored higher on standardized test scores (English and math) than non-SDP students at the seventh grade level. They also show important connections between SDP students' self-concepts and their behavior and attitudes. This latter finding is a strong indication that a mental health approach to school improvement has lasting effects on the students involved.

Findings from the Benton Harbor study indicate that students attending SDP schools ranked higher than students attending non-SDP schools in terms of standardized test scores, report card grades, self-concept, and both general and in-school behavior patterns. Teachers in SDP schools assess their schools' climate as more positive than teachers in non-SDP schools.

Analysis is currently taking place on data gathered in New Haven and Benton Harbor during 1985. This further analysis will allow for more comprehensive and detailed interpretation of the impact of the SDP on students and their schools.