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**ABSTRACT**

This research report provides an evaluation of a screening program to identify potentially gifted or handicapped children among new entrants to New York City schools. Chapter 53 of the New York State Education Laws (1980) requires screening of students in the areas of physical development, cognitive skills, receptive and expressive language, articulation, and gross and fine motor skills. The overall aim of the review here reported was to determine the need for a more comprehensive evaluation. The evaluation consisted of a survey of screening staff, technical analysis of the screening instruments used, and a review of the reliability and validity data for the primary level screening instrument, the Brigance K and 1 Screen. Findings indicate that 15% of New York City students are involved each year in screening, of whom 57% are kindergarten or grade 1 students; and that 85% of the English speaking (but only 63% of the limited English proficient students) were fully screened by the end of the school year. Among recommendations the following are stressed: the need for centrally issued specifications on program objectives; the consideration of screening purposes in the establishment of cutoff scores; and the provision of equitable screening for limited English proficient students. (DB)

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A Review of  
Chapter 53 Screening

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## A REVIEW OF CHAPTER 53 SCREENING

### SUMMARY

In the spring of 1985, the Office of Educational Assessment (O.E.A.) conducted a review of the Chapter 53 screening process. Although the initial focus of the review was to be the primary screening instrument, the larger screening process was also examined.

The New York State Education Laws of 1980 require school districts to screen all new entrants to identify children who may be gifted or handicapped, and who may need early specialized intervention. The screen is intended to be a quick assessment of general development in the areas of physical development, cognitive skills, receptive and expressive language, articulation, and gross and fine motor skills. The purpose of this initial measure is to determine whether a more comprehensive evaluation is warranted; it is not to determine actual placement in specialized programs. Screening is to be conducted in a student's primary language by December 1 of the year of school entry or within 15 days of the student's transfer. This is to facilitate early delivery of special services where indicated by more thorough evaluation.

O.E.A.'s review consisted of: a survey of the staff most directly involved with screening, a technical analysis of the primary screening instruments used, and a review of reliability and validity data for the primary screening instrument.

Structured, open-ended interviews were conducted with key staff from central offices most directly concerned with screening. Information gleaned from these interviews was used to develop questionnaires which were sent to larger staff groups involved with screening (viz., Committee on the Handicapped chairpersons, high school borough screening coordinators, school screening coordinators, screening team members, teachers, district screening administrators, early childhood coordinators, gifted and talented coordinators). A total of 263 questionnaires were returned. The questionnaire responses were the primary data sources of the research. Feedback from 442 elementary school principals who responded to questionnaires sent by the Chapter 53 program staff in May 1984 was also analyzed.

The research findings indicate that there are decided strengths, as well as pronounced limitations of screening as it is currently conducted. Each year, Chapter 53 screening involves approximately 15 percent of New York City public school students. In the 1984-85 school year, 137,705 students were involved with screening. Of these children, 57 percent were kindergarten or grade-one students. Eighty percent of the students across all grade levels who required screening were English-dominant.

Of the students who required screening during 1984-85, 85 percent of the English-speaking students (and 63 percent of the limited English proficient students) were fully screened by the end of that school year. The screening is not always provided in the timely manner required by the state legislation. Some children, particularly LEP students, remain unserved for the bulk of their school entry year. By the end of 1984-85, five percent of the "students requiring screening" had not been screened -- four percent of the English-speaking students and nine percent of the LEP students. Among the high school students requiring screening, just over half (54 percent) were fully screened. By the end of 1984-85, 96 percent of the LEP students and 30 percent of the English-speaking high school students who needed screening services had not been fully screened. In addition, LEP students were far less likely than English-speaking students to be screened in their primary language, often because of difficulties in obtaining personnel to perform the screening in all the languages needed. So, for many students, the promise of early screening and intervention remains unfulfilled.

A large number of kindergarten and grade-one students do receive full early individualized screening. However, the current cutoff scores inappropriately identify too many students as potentially gifted (30 percent) and too few as potentially disabled (one percent). The survey showed that there was considerable dissatisfaction with the instruments and the cutoff scores used in screening.

When screening is completed, there is sometimes less than adequate follow-up. In many instances, referrals for further evaluation are delayed and the results do not get to teachers or get to them late. The delays in administering the screen and in transmitting the results to teachers render the screening results considerably less useful than they could be.

The report's recommendations focus largely on the objectives of the screening process, its administration, and the instruments used.

- There needs to be a centrally-issued specification of program objectives, along with an explicit definition of other critical terms in the screening process (e.g., unbiased screening for LEP students).
- The misconceptions about the purposes of screening held by some people hamper the consistent delivery of services across school districts and across student groups, and generally limit the program's effectiveness.
- The basic screening purposes should be reflected in the cutoff scores established. The current systemwide identification rates of 30 percent as potentially gifted and one percent as potentially disabled do not seem to appropriately reflect actual student needs.
- The screening instruments used should more appropriately identify disabilities and gifts in each developmental area. The measures used need to provide results more indicative of a student's ability to learn than of prior home and school teaching experience. New instruments should be considered.

- A major weakness of the screening program as it is currently conducted is the screening provided for LEP students. Equitable screening needs to be provided for students from all backgrounds. LEP students need to receive full screening services, in a timely fashion, in their home languages, using measures that are culturally unbiased.
- The program could profit from a more integrated effort by concerned staff (e.g., ongoing communication between screeners and teachers; program staff and staff of other relevant sections, New York State screening staff, and screening personnel from other major cities in the state).
- Recommendations for other administrative modifications included improving follow-up procedures, providing more logistical support, shortening the turnaround time for receipt of results, and considering screening as the initial component of an overall testing program, rather than as an isolated entity.

Because of other changes now being made in the screening program, the accomplishment of many of these recommendations may be within reach. The screening mandated is clearly a major task for the system, but given the available resources, a manageable one.

We would like to thank the staff who gave so generously of their time and energy to provide this information. They were very thoughtful in their review, incisive in their critique, and constructive in the suggestions they offered for ways to improve the screening we can provide students.

We also thank Mary Ann Okin for her exceptional competence and tireless good humor in coordinating the many components required to produce this report.

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## I. INTRODUCTION

New York State's Chapter 53 legislation of 1980 requires school districts to screen all new entrants to identify children who may be gifted or handicapped, and who may need early specialized intervention. The law prescribes an unbiased general measure of abilities, a quick assessment of general development to determine whether a more comprehensive evaluation is warranted. The preliminary screening is to be conducted in the student's primary language by December 1 of the year of school entry or within 15 days of the student's transfer. Any referrals for further assessment are to be made within 15 days of screening. The developmental areas to be examined include: physical development, cognitive skills, receptive and expressive language, articulation, and gross and fine motor skills.

Screening is the responsibility of New York City's Office of Student Progress (O.S.P.), Student Health and Screening Section. Kindergarten and first-grade students are screened by teams supervised by district screening administrators. Various school-level staff screen newly-entering students in grades two through twelve.

The following instruments are used for screening students in New York City:

Pre-Kindergarten -- Health screening (check blood pressure, heart, vision, hearing, sickle cell anemia, scoliosis, immunization records)

Kindergarten -- Developmental Indicators for the Assessment of Learning (DIAL) or Brigance K and 1 Screen (district superintendents have the option of which instrument to use) and health screening

Grade 1 -- Brigance K and 1 Screen and health screening

Grades 2-12 -- N.Y.C. Observational Checklist and spring standardized reading achievement tests and health screening

The skills measured by the DIAL include seven major tasks in each of the areas of gross motor skills, fine motor skills, concepts, and communications. The gross motor skills measured are throwing, catching, jumping, hopping, skipping, standing still, and balancing. The fine motor tasks are matching, building, cutting, copying shapes, copying letters, touching fingers, and clapping hands. The concepts section of the screen includes the following tasks: sorting blocks, naming colors, counting, positioning, following directions, identifying concepts, and identifying body parts. The communications tasks include articulating; remembering; naming nouns and verbs; coping; naming self, age, and sex; classifying foods; and telling a story.

The Brigance K and 1 Screen is used in most districts. Its tasks include: personal data response (i.e., a verbal response of student's name, age, address, and birthdate), color recognition, picture vocabulary, expressive language, visual discrimination, visual-motor skills, ten gross motor skills (including hopping, walking, and standing), rote counting, identification of body parts, receptive language, numeral comprehension, and printing personal data.

A copy of the New York City Observational Checklist is included as Appendix 1.

Cutoff scores and the relative weight assigned to component parts of the screens for the purpose of identifying various groups of children are established by the Board of Education, in cooperation with the instrument developers.

For limited-English proficient (LEP) students in kindergarten and grade one, foreign language consultants administer translations of the standard instruments. (Literal translations are currently available in Spanish, Haitian-Creole, Italian, Greek, and Chinese.) Currently, there are no citywide systematic arrangements (and no standard translations of instruments) available for LEP screening above grade one.

There are four possible outcomes of screening:

1. a request for School-Based Support Team (S.B.S.T.) involvement, for students identified as possibly handicapped;
2. a request for further observation;
3. a decision that no further assessment is warranted; or
4. a referral to the district superintendent, for students identified as possibly gifted.

## II. EVALUATION METHODOLOGY

In the fall of 1984, the Office of Educational Assessment (O.E.A.) was asked to provide the O.S.P. with technical assistance on the process and the instruments used in Chapter 53 screening. During the spring of 1985, the Office of Educational Assessment's (O.E.A.) Research and Development (R. and D.) section reviewed Chapter 53 screening to provide data to better inform decisions regarding the instruments and processes to be used in future screening. There were three elements of this review: a survey of the staff most directly involved with screening, a technical analysis of the primary screening instrument used, and a review of reliability and validity data for the primary screening instrument that were available from the All-Day Kindergarten evaluation.

After reviewing background material on Chapter 53 screening, structured in-depth, open-ended interviews were conducted with key staff from central offices most directly concerned with the screening: the Office of Student Progress' Health and Screening section, the Division of Curriculum and Instruction's Early Childhood and Gifted and Talented units, the Division of Special Education's Testing and Committee on the Handicapped (C.O.H.) sections, and the Office of Bilingual Education.

Information gleaned from these interviews and from the background material was used to develop questionnaires for relevant staff groups. High School Borough (screening) Coordinators completed questionnaires during one of their regular staff meetings with Chapter 53 staff. At regular program meetings of District Early Childhood Coordinators,

Screening Administrators, and Gifted and Talented Coordinators, the evaluation project was described, a questionnaire was distributed to each coordinator, and staff were asked to complete and return the questionnaire within two to three weeks.

Similarly, the evaluation was described at a meeting of School Improvement Project (SIP)\* staff, and they were asked to distribute the questionnaires to a sample of teachers in SIP schools. They were selected because SIP represented a range of schools and districts and because it was administratively easier to distribute and collect questionnaires in these schools, given the fact that Office of Student Progress staff members worked in these schools as SIP staff. The District Screening Administrators for 29 of the 32 districts also sent us the names of School Screening Coordinators and/or Screening Team members in their districts. From these lists, three School Screening Coordinators and two Screening Team Members per district were randomly selected and sent questionnaires. Questionnaires were also mailed to each C.O.H. Chairperson.

A total of 263 questionnaires were returned by 10 C.O.H. Chairpersons, three High School Borough Coordinators, 31 School Screening Coordinators (from 19 districts), 30 Screening Team Members (from 19 districts), 140 SIP teachers (representing 21 schools in 12 districts), 12 Early Childhood Coordinators, 21 District Screening Administrators, seven Gifted and Talented Coordinators, and nine respondents who serve in multiple roles (i.e., five as District Screening Administrator and Early Childhood

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\* The School Improvement Project is a centrally-administered school-based planning project serving a large number of schools in New York City.

Coordinator, two working as District Screening Administrator and Gifted and Talented Coordinator, and two as Screening Administrator, Early Childhood and Gifted and Talented Coordinator in their districts).

The District Screening Administrators were the most responsive staff group (94 percent response rate), followed by Early Childhood Coordinators (59 percent), Screening Team Members (58 percent), School Screening Coordinators (47 percent), C.O.H. Chairpersons (31 percent) and Gifted and Talented Coordinators (31 percent). We cannot estimate the response rate for SIP teachers because some SIP staff, principals, and teachers felt that they and their staff were so unfamiliar with screening that they were unable to address the questions posed in the survey. They returned the questionnaire packets and/or phoned to explain their difficulty.

Of the teachers responding, most taught in monolingual (93 percent) and general education (94 percent) classes in the grades where most screening occurs -- kindergarten through grade two (74 percent). Similarly, most screening team members (90 percent) were primarily involved in screening pre-kindergarten, kindergarten, and first-grade children.

Another major component of the evaluation was a technical review of the primary screening instrument. A testing expert summarized the available technical data for the English and Spanish versions of the Brigance Screen.

Because of the lack of published reliability and validity data for the primary screen provided, data gathered and analyzed as part of the 1983-84 evaluation of New York City's All-Day Kindergarten (A.D.K.) program were reviewed. The evaluation examined fall entry data to assess the efficacy of the Brigance screen in identifying children who might need special programming.

This report also includes feedback provided in a questionnaire sent to all elementary school principals by the Chapter 53 program staff of the Office of Student Progress in May, 1984 -- before this more comprehensive survey was planned. Principals were asked about their experience with screening pre-kindergarten through grade one students, specifically the uses to which they had put screening results, their assessment of screening teams, and the arrangements made for limited-English proficient (LEP) students. Four hundred and forty-two principals (70 percent) responded to forced-choice questions on these topics.

### III. FINDINGS

The Chapter 53 screening is a major effort of the New York City school system, each year involving approximately 15 percent of the students. For the last year for which complete screening data were available (1984-1985), 137,705 students were involved with Chapter 53 screening. Of these children, 57 percent were kindergarten or grade-one students. The screening results indicated that 31.5 percent of kindergarten and grade-one students screened "performed above expectation," and 15 percent either required "School-Based Support Team (S.B.S.T.) involvement" or "further observation." Across all grade levels, 22 percent of students screened "performed above expectation," and 12 percent either required "S.B.S.T. involvement" or "further observation."

Eighty percent of students across all grade levels who required screening were English-dominant. Twenty percent were LEP students, who spoke 35 languages and dialects. Staff described considerable variation in the screening provided for English-dominant and LEP students. There were also marked differences in the screening results. LEP students were disproportionately represented among students who were not screened and when screened, underrepresented among students identified as possibly gifted. By the end of 1984-85, 37 percent of the LEP students (and 15 percent of the English-speaking students) had not been fully screened. Five percent of the "students requiring screening" had not been screened at all -- four percent of the English-speaking students and nine percent of the LEP students. This situation was most pronounced at the high school level. Among high school students requiring screening, just over half (54 percent) were fully screened. By the end of 1984-85, 96 percent



of the LEP students (and 30 percent of the English-speaking students) had not been fully screened. Screening results indicated that, of kindergarten and grade-one students actually screened, LEP students were nearly twice as likely to require "S.B.S.T. involvement" (1.3 percent) as were English-speaking students (.7 percent). They were only slightly more than one-third (13 percent) as likely to be deemed gifted ("performs above expectation") as were English-speaking children (35.4 percent). At other grade levels, the underrepresentation of LEP students among the gifted was not as marked -- though across all grade levels, LEP students were less than half as likely (11 percent) as English speaking students (24 percent) to "perform above expectation."

The remainder of this report is divided into three sections describing screening provided at the major grade levels -- kindergarten and grade one, grades two through nine, and high school. The screening available varies considerably by grade levels.

### KINDERGARTEN AND GRADE ONE

This section includes a summary of the findings of the survey of concerned staff, as well as information from the technical review of the primary screening instrument.

### Overall Assessment

The survey data indicate that staff generally appreciate the concept of screening, although they voice a number of specific concerns about screening as it is currently conducted. In addition, the closer their formal involvement with screening, the more information they had about the history and current implementation of screening, and the more detailed their critique of and recommendations for screening efforts. Many staff

had very limited experience with screening. For example, many of the 140 teachers who returned the questionnaires felt they had insufficient information about screening to answer some of the questions posed; some were even unaware of the screening program. Only 10 C.O.H. chairpersons returned questionnaires. Many other C.O.H. staff indicated that they were unable to assess the screening because they were unfamiliar with the Chapter 53 process. Although students are referred to C.O.H. for further observation, there are a number of sources for those referrals, only one of which is the Chapter 53 process. A few of the C.O.H. staff who did respond returned mostly blank surveys explaining that the C.O.H. has "virtually no involvement" with the Chapter 53 screening process. Many of the staff groups surveyed held some misconceptions about screening -- staff often referred to screening as "testing" and hoped for it to be more "accurate."

There was considerable variation in the level of satisfaction with screening of different staff groups. Screening team members were the most satisfied of any the groups surveyed; most (93 percent) were highly or moderately satisfied with the current screening effort. Most of the (ten responding) C.O.H. chairpersons were satisfied with the current screening process. Of the coordinators,\* 61 percent were moderately satisfied with

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\*Throughout this report, any reference to coordinators includes the comments of district screening administrators, district early childhood coordinators, district gifted and talented coordinators, and school screening coordinators. Any reference to central coordinators can be attributed to staff from central offices cited on page 4. The coordinators' responses have been combined because of the small samples of the different groups of coordinators, and the minimal differences in their responses to most questions. Where there were noteworthy differences among the groups of coordinators, they are cited. The only notable difference across different questions was that for a number of questions, district screening administrators were the staff most likely to offer detailed responses to the questions posed. This did not occur for each question, but it was apparent in many instances.

the current screening, though nearly 40 percent (39 percent) reported at most, only minimal satisfaction. A slim majority of teachers (53 percent) were also satisfied. Central staff expressed more limited satisfaction. Their appreciation of early screening was qualified by their concerns with the following:

1. using screening results as predictors of performance,
2. using the Brigance as a measure of giftedness,
3. the Brigance's uneven assessment of different skill areas,
4. inadequate communication between screeners and teachers,  
and
5. screening for LEP students.

A majority of the principals responding to each of the eight forced-choice questions in the earlier survey indicated that they were satisfied with particular aspects of the screening program, yet the survey also identified certain elements of the screening that were problematic for a substantial percentage of principals.

Many principals volunteered comments in addition to answering the forced-choice questions. These comments often explained some of the sources of the principals' dissatisfaction. A number of the comments offered by principals anticipated the concerns raised by other staff in the 1985 surveys. Principals were largely concerned with particular characteristics of the primary screening instrument, the time of the school year when screening is administered, time that elapses before feedback about results is received, and foreign language screening.

Strengths of screening identified by some respondents included its capacity to identify students with particular gifts or disabilities early in their schooling, the individualized nature of the screening, and the diagnostic assistance provided to teachers (this was mentioned by screening team members and coordinators, though not by teachers with any notable frequency). Twenty-four percent of the coordinators also described the Brigance as "cost-effective" and easy to administer. Coordinators also cited the screening's helpfulness in heightening teachers' awareness of children's needs and in developing instructional programs to meet those needs. Similarly, the central coordinators considered the primary strength one of general consciousness-raising, making staff more aware of early childhood and screening needs.

The characteristics of the screening effort most often identified as serious weaknesses were the cutoff scores and inadequate follow-up. Teachers (50 percent), coordinators (45 percent), C.O.H. chairpersons and screening team members (22 percent) agreed that the cutoff scores inappropriately identified too many children as gifted and too few children as potentially handicapped. Central staff, screening team members (29 percent), coordinators and teachers (24 percent) also agreed that follow-up was inadequate. Many students were identified as potentially handicapped or gifted, yet no action was taken on their behalf. C.O.H. chairpersons, some coordinators, and teachers (9 percent) also cited lack of teacher involvement, particularly in the follow-up process. C.O.H. chairpersons also suggested that additional screening be implemented in mid-elementary school. Twenty percent of the teachers expressed concern that the instru-

ments currently used did not "adequately reflect a student's giftedness or potential difficulty." Other teachers (6 percent) were concerned that the screening results were more closely related to prior school and home teaching experience than they were a function of a child's capacity to learn. Thirty-five percent of the coordinators also described a number of administrative problems (viz., timing of screening, delays in receiving results, burdensome paperwork, and lack of cooperation from schools) as major problems with the screening as it is currently conducted. They urged that there be an explicit specification of terms for districts. For example, currently, it is not clear to many districts what is meant by "fair and unbiased" screening of LEP students.

Central coordinators also wanted more technical data, particularly age norms, multidimensional scoring (indicating areas of uneven development), and increased effectiveness with multicultural children. They were disappointed by the implementation and by classroom teachers' minimal "ownership" over screening -- "they get no payoff" because they "never get information back".

The central coordinators criticized the primary instrument and the specific indicators it uses as measures of the prescribed skill areas -- they offered a fairly specific critique of individual items within the instrument.

A number of the principals surveyed in May, 1984 considered the primary instrument a poor measure of abilities, and that, to be truly useful, it needed to be age-normed. They felt the currently used instruments identify students' weaknesses, but not strengths.

The coordinators concurred -- they felt the current screen more adequately identified possible handicaps than possible giftedness. Over half (55 percent) felt the current screen identified possible handicaps at least fairly well, though nearly half (45 percent) felt the current screen accomplished this task minimally, at best. A decided majority of coordinators (71 percent) felt the current screen identified potentially gifted students minimally, if at all. Similarly, about half of the teachers felt the current cutoff scores inappropriately identify too many students as gifted and too few students as potentially handicapped.

### Time for Screening

Almost all of the screeners reported that screening for kindergarteners and first graders is conducted in the fall of the school entry year. Most coordinators reported that the bulk of screening at these grade levels was conducted between the beginning of the school year and January. New entrants were screened throughout the school year.

This timing of screening is considered less than satisfactory by a substantial minority of the staff. One-third of the coordinators said the amount of time that currently elapses between school entrance and screening detracts notably from their district's use of the screening results at the kindergarten and grade-one levels.

When asked what time of the school year screening should be conducted for the results to be most useful, the staff offered a range of responses, though they expressed a decided preference for administration early in the school year. The high school administrators, along with some screeners (28 percent), C.O.H. chairpersons (44 percent) and coordinators (40 percent) preferred that screening be done in the spring or summer before school

entry. This preference aside, a high school administrator noted that the large number of "walk-ins" at the high school level mediate against screening before entrance. Most teachers (77 percent) and coordinators (55 percent) wanted the screening conducted during or before September of school entry year. Some coordinators wanted at least the screening of physical development to be done immediately upon entrance. Most screening team members (65 percent) and some coordinators (44 percent) preferred that screening be conducted in September and October of their school entry year. Most of the C.O.H. chairpersons (55 percent) preferred screening in October or November of school entry year.

There was little agreement over the most appropriate time for screening among the principals surveyed in May, 1984 -- some wanted it conducted earlier than it is currently done and some preferred it to be conducted later in the school year.

Similarly, there was no consensus reached among the central coordinators on this matter -- some wanted screening done as early as possible so screening did not merely identify what students have been formally taught and so that students would begin school and continue in one program rather than changing programs mid-year. Other central coordinators preferred that the screening be done as late as possible -- to "give them a chance to learn some things."

This issue highlights some of the confusion about the purposes of screening that are directly tied to the primary instrument currently used. If coordinators have to assume that this instrument will continue to be used, even with its bias towards assessing the readiness skills students have already acquired, they want students screened as late as possible to

neutralize any possible influence of preschool experience. Those coordinators who focused on the stated purposes of screening, however, wanted the diagnostic work done as early as possible. This question also emphasized the need for an age-normed instrument. Some children at the same grade level are at markedly different ages when screened, and the currently used instrument does not account for this in score interpretation.

The current turnaround time for screening results to reach the teachers ranges from one day to four months for children in kindergarten and grade one. Thirty-three percent of the coordinators indicated that the results were returned within one to two months. Twenty-five percent said the turnaround time was one week, while 18 percent said that it was between one week and one month. Nine percent reported a turnaround time of two to four months. While most coordinators (66 percent of the respondents to this question) found this time adequate for their needs, one-third of the coordinators said that the amount of turnaround time detracted at least moderately from the utilization of the kindergarten and grade-one screening results in their district. This is a major problem, described by a kindergarten teacher: "from implementation to finale (submission of S.B.S.T. forms, etc.), it takes too long, resulting in minimal (or non-existent) follow-up by the teacher during the school year. Results are received by the teacher in the spring." These findings reinforce the comments offered by some principals in the earlier survey, as they cited the need for "more prompt feedback." Fifteen principals volunteered that the screening results were received too late after the initial screening to help implement strategies for improvement.



### Administrative Issues

Administrative problems encountered were specific to the roles of different staff surveyed. Most teachers (85 percent) had not encountered administrative or logistical problems. For those who did, the most troublesome aspect of screening was inadequate and/or late follow-up to the screening. This occurred for reasons ranging from time-consuming paperwork to the district superintendents' reluctance to place children in special education programs. One half (51 percent) of the coordinators reported experiencing administrative problems. Coordinators' major administrative concern was the insufficient time permitted to complete their work. The other problems they cited included inadequate funding for screening, LEP screening arrangements, and inadequate space planning for screening. More than half (57 percent) of the screening team members reported experiencing administrative problems, such as a lack of cooperation from the schools, inadequate space, pressures on the screening team to rush the testing, and inadequate provision for translating instruments for foreign students.

### Instruments Used

The instrument most commonly used for kindergarten and grade-one screening is the Brigance -- almost all of the screeners and 88 percent of the coordinators used it. Nine percent of the coordinators reported using the DIAL for kindergarten screening. Other coordinators currently use combinations of the Brigance, the Boehm, the Language Assessment Battery (LAB), the Stanford Early School Achievement Test (SESAT), and the School Readiness Test (SRT).

The Brigance's greatest strengths were its general ability to screen students' strengths and weaknesses (mentioned by over one-third of the screening team members and most of the coordinators), its ease of administration (cited by the screeners), its brevity (mentioned by the screeners), and its comprehensiveness (important to the coordinators). Staff also appreciated that the Brigance was easily scored and provided individualized screening (noted by screeners and coordinators).

The major weaknesses of the instrument were related to its content and administration (particularly its scoring). Over one-third of the coordinators (35 percent) found the Brigance inadequate for appropriately identifying gifted or potentially handicapped students. "After December, practically all children score 'above expectation'". The Brigance was viewed by many as "more of an achievement test than one of general abilities". The student's score was seen as a reflection of their school experience and acquired skills, rather than a measure of general abilities. Coordinators were also concerned about the inadequate norming of the Brigance, which they felt contributed to its limited validity.

Fifteen percent of the screeners felt that consistent scoring of the test was difficult, and that the results therefore had to be considered with caution. Twelve percent expressed concern about the Brigance instructions that no credit for correct answers be given after the child had made two consecutive errors on a question.

The content of the Brigance was also problematic for some screeners. Twelve percent thought that the body part identification section of the test was too difficult for kindergarten and non-English speaking children.

Screeners also complained about the choice of examples given, the sequence of the test, and the content of various sections. Their comments about the more general characteristics of the Brigance indicated that it was not comprehensive enough, and that it was not very helpful for those children who had pre-kindergarten experience.

A number of other limitations of the Brigance were also cited. These included: the assessment of isolated skills rather than overall skill areas, a lack of technical data, and cultural limitations of the instrument for limited-English proficient children.

When asked directly about the instrument's capacity to identify potentially gifted and handicapped students, staff offered only limited approval of the Brigance.

No more than 55 percent of the coordinators found any of the specific Brigance measures even moderately helpful in identifying possibly gifted students. One-third (31 percent) to one-half (55 percent) of the coordinators considered each of the specific Brigance measures minimally helpful, at best. The only measures that were at least moderately helpful to half of the coordinators were the visual-motor skills, color recognition, identification of body parts, and the numeral comprehension measures. They considered the Brigance measures somewhat more helpful in identifying potentially handicapping conditions than in identifying potential giftedness -- with between 47 percent and 77 percent of the coordinators considering the measures at least moderately helpful. Similarly, more coordinators found Brigance results confirmed by actual classroom performance for students who may have handicapping conditions than for possibly gifted stu-

dents. Three-quarters (75 percent) of the coordinators felt the current Brigance cutoff scores inappropriately identify too many children as gifted. Over one-half (54 percent) felt the current cutoffs identify too few children as potentially handicapped. Again, it should be noted that the Brigance cutoffs and the weighting system used were originally specified by the Board of Education.

As was reported by other staff groups, the coordinators indicated that the Brigance more adequately screened for handicaps than for possible giftedness. Almost three-quarters of the coordinators (73 percent) felt the Brigance identified possibly gifted students minimally, if at all. Almost two-thirds (62 percent) reported that the Brigance identified potentially handicapped children at least fairly well. Corroborating this finding, several C.O.H. chairpeople felt that the Brigance was not very reliable in identifying possible handicapping conditions.

We asked coordinators how adequate they considered the Brigance items as measures of the state-mandated skill areas. Most (between 50 and 93 percent) of the coordinators felt the items within the Brigance were at least moderately adequate measures of the six major skill areas. However, a sizeable minority of the coordinators felt that the Brigance coverage of three skill areas (viz., receptive language (44 percent), expressive language (50 percent), and articulation (43 percent)) was only minimally adequate.

When asked about the scoring of the screen, there was some variety in the response. Currently, cognitive skills are most heavily weighted, accounting for 50 percent of a student's total screening score. Slightly

more of the C.O.H. chairpersons, coordinators, and teachers preferred differential weighting (vs. equal weighting) of the skill areas screened. Among coordinators and teachers, the preferred weighting of the skill areas was cognitive skills, expressive language, receptive language, articulation, fine and gross motor skills. There was virtually no consensus among C.O.H. chairpersons about ranking of the skill areas in the overall screening score.

When asked if other skill areas should be included in the screen, forty percent of the coordinators indicated that skill areas should be added to the screening to better identify potentially handicapped students. For kindergarten and grade-one students, the most frequently mentioned skill areas to be added included social skills, physical coordination, task commitment, expressive and receptive language skills, and reasoning skills. For students at all grade levels, coordinators recommended increasing teacher input regarding the student's overall performance. Several C.O.H. chairpersons offered suggestions of skill areas to add to or expand in the instrument to better assess handicaps in kindergarten and grade-one students. These included social skills, visual memory skills, auditory discrimination and memory, and cognitive skills.

Staff were asked to identify any skills which might be added to the current screening to more appropriately identify gifted students (K-9). Half of the coordinators (48 percent) thought that skill areas should be added, most frequently suggesting creative skills (including artistic abilities), problem-solving skills, and language skills. Additional skill areas mentioned were analytic skills, general cognitive skills, social

skills, and for kindergarten and first-grade students, task commitment. A number of coordinators also cited the need for teachers' assessments of each student. Other staff suggested a number of other skills to be included in a new instrument, viz., human relations or social skills, affective or emotional characteristics, artistic creativity, reasoning, problem-solving, mathematics, and fine motor skills related to those children use in schools.

The staff reported at least moderate satisfaction with the Brigance instructions and with the cultural fairness of the instrument. They were somewhat less enthusiastic, however, in their assessment of the available translations of the Brigance.

All of the screeners and most of the coordinators (83 percent) found the Brigance instructions at least moderately appropriate for students' ages and grade levels. The overwhelming majority of screeners (93 percent) and coordinators (90 percent) also thought that the Brigance was at least moderately culturally fair. Most of the screeners (81 percent) found translations of the Brigance at least somewhat useful. Fewer than half of the coordinators (47 percent) reported using the translation and finding the results even somewhat useful. There has been considerable dissatisfaction with the Brigance, as it is translated into other languages. Some staff consider it a culturally biased instrument, that underestimates differences between children. They find it "developed for and by Anglos".

#### Translation Arrangements

Staff described substantial variation in the arrangements made for screening kindergarten and first-grade children whose dominant language

was not English. Most often (as cited by 68 percent of the screeners and 39 percent of the coordinators), bilingual screeners, paraprofessionals, or other school personnel were enlisted to translate the English screen. Yet, a substantial amount of the LEP screening relied on less systematic arrangements including recruiting older students, siblings, and parents to translate. This corroborated a complaint cited earlier by staff. When asked the most serious weaknesses of screening, many cited LEP screening, particularly the extent to which it is administered by anyone able to speak a specified language, though not necessarily by individuals who were seriously trained in child development or screening.

The final questions asked of principals concerned arrangements made for LEP students. Three-quarters (75 percent) of the principals indicated that foreign language personnel were employed to screen LEP students. Eighty-two percent of the respondents found the "use of foreign language personnel beneficial in assessing student strengths."

In the larger (1985) survey, staff cited several variations in the implementation of these arrangements; in one instance, if a child screened poorly in English, he/she would be rescreened in his/her native language. In another example, the screen was readministered when the child was more proficient in English. In one screening team's experience, the English-speaking screener made an attempt at the foreign language in conjunction with using sign language. Staff cited another concern that test validity suffered because translators were not available for all languages. Several coordinators noted that nothing was systematically done in their districts to accommodate students whose primary language was a language other than English.

Fewer than half of the coordinators (44 percent) and 62 percent of the screeners found the arrangements to be even moderately adequate. More staff (56 percent of the coordinators and 38 percent of the screeners) considered the arrangements minimally or not at all adequate.

Teachers seemed to have had a more positive view of LEF screening. They did not consider the instrument as culturally biased as did some of the other staff groups. Most teachers (65 percent) thought that the instruments were culturally fair. While most teachers (59 percent) found the current translation arrangements at least moderately adequate, it should be noted that 26 percent found them only minimally, if at all, adequate.

#### Student Groups for Whom Screening is Inappropriate

Staff were asked if they found screening inappropriate for any groups of students. Over half the screeners (57 percent), one-third of the coordinators, one-fifth (22 percent) of the teachers, and some of the C.O.H. chairpersons cited certain groups. Half of these screeners, 38 percent of these coordinators, and some C.O.H. chairpersons reported that the current screening was not appropriate for those students whose native language is not English. One-fifth (22 percent) of the teachers felt that the screening was inappropriate for children whose native language was not English or Spanish. Translations were often not available, making the screening extremely difficult for LEP students. Other respondents (including 27 percent of the coordinators citing this as a problem) felt that the screening was not appropriate for students who were screened before they were comfortable in school, and for children who were shy, had



emotional problems, or who had severe behavioral problems and needed to be tested by a psychologist or social worker.

### Staff to Conduct Screening

Most staff, i.e., the majority of each staff group surveyed (screening teams, 60 percent of the coordinators, C.O.H. chairpersons, teachers), considered the screening teams to be the most appropriate staff to conduct the screening. There was however, considerable sentiment that classroom teachers could more appropriately conduct screening at the lower grades (below grade two) -- this was cited by 21 percent of the coordinators, 10 percent of the screeners, and some C.O.H. chairpersons.

The teachers wanted more of a role in screening in the lower grades (below grade two), and wanted the screening teams to become more involved in the screening in the higher grades. Some C.O.H. chairpersons, one-quarter of the coordinators (26 percent), and a minority of screeners (13 percent) felt that classroom teachers or other staff would be more appropriate, particularly at the kindergarten level.

Principals were largely positive in their assessment of current screening personnel. The overwhelming majority (96 percent) considered the screening teams well trained. Most (89 percent) agreed with the statement that the "use of screening teams, rather than screening by classroom teachers, had been an improvement in the program." Among the 11 percent of respondents who did not consider the use of screening teams an improvement, however, there was considerable consistency. Sixteen principals reported that it was more beneficial and reliable for teachers to assess students. They stated that teacher assessment is ongoing and when

teachers screen students they assess needs immediately and can implement improvement strategies without waiting for results from the screening teams.

### Use of Screening Results

Most teachers (53 percent) and 29 percent of the coordinators reported that the results were of no use to them; many did not find the results useful for their primary purposes -- referring students for further evaluation, and planning remedial and enrichment activities.

So, while most coordinators (71 percent) used the results to at least a moderate extent, a substantial minority (29 percent) used them minimally or not at all. Specifically, the majority of the coordinators found the screen at least moderately useful for placing students in remedial programs and 46 percent found it useful for placing students in enrichment programs; yet one-third found it only minimally useful, at best, for remedial placements and over one-half (54 percent) deemed screening virtually useless in enrichment program placement. In response to the forced-choice questions posed to them, a decided majority (75 percent) of the principals agreed that screening was helpful "for planning a program based on a child's skills and knowledge, strengths and weaknesses," and helpful to teachers "in meeting individual needs (71 percent)." Seventy percent of the principals said they had "altered their instructional program based on screening results," and 64 percent agreed that "as a result of the customization of instruction resulting from screening results, the children progressed at a better pace than anticipated."

Responses to these questions also indicated that one-quarter of the principals had not found the screening helpful for instructional planning, and 28 percent reported that screening results did not help their teachers meet the needs of individual students. Almost 30 percent of the principals had not "altered their instructional programs based on screening results." One-third of principals reported no unexpected student progress related to screening.

More of the district screening administrators reported finding the screening results useful for remedial placement than did other coordinators (viz., early childhood coordinators, gifted and talented coordinators, and school screening coordinators). Two-thirds of the coordinators (67 percent) found the screening data useful in referring students for further testing. However, one-third found the data minimally, if at all, useful for this purpose. School screening coordinators (48 percent) were the coordinators least likely to report finding the tests useful for referrals for further observation.

Again, more than half of the teachers (53 percent) reported that they did not find the results useful. A major reason for this was probably the time when screening had been administered (i.e., too late to be of substantial use to teachers). Most teachers (77 percent) felt screening would be most useful if it were conducted during or before September of a child's school entry year.

### Technical Review of Test

Expert Review. The review that follows is based on an expert's critique of the primary screening instrument, the Brigance K and 1 Screen

(Curriculum Associates, Inc., Massachusetts, 1982). The Brigance is individually administered, and is presented by its developers as a criterion-referenced measurement with results having predictive validity for success in kindergarten and grade 1, and which can be related to the instructional program. The screen currently used is a New York City revision of a form of the Brigance (i.e., excerpted from the more comprehensive Brigance Diagnostic Inventory of Basic Skills (1976), and the Brigance Diagnostic Inventory of Early Development (1979) which respectively measure 11 and 12 skill areas).

The developer describes the skills assessed as curriculum-based and classifies them as falling into five strands -- language development, motor ability, number skills, body awareness, and auditory and visual discrimination. There is some correspondence between these developmental areas and the major skill areas specified in the New York State screening mandate (viz., cognitive skills, gross and fine motor skills, receptive and expressive language, and articulation). The Brigance skill areas are differentially weighted, with the cognitive skills measures accounting for almost 50 percent, the largest portion of the total test score. The weighting currently used in New York City is cognitive skills (47.6 percent), expressive language (24 percent), fine motor skills (14.3 percent), gross motor skills (9.5 percent), and receptive language (4.8 percent). The instrument is not provided with material describing any rationale for assigning these specific weights. Without the theoretical or practical rationales for this particular weighting of skill areas, the testing expert questioned the use of area or total scores relative to instruction.

Similarly, there is unconvincing evidence that the most important kindergarten readiness skills are measured or that the areas screened are representative of a particular domain. For example, the assessments falling within the cognitive skills area seem to measure rote learning more than conceptual development.

Another major concern for the testing expert, concurring with a published review, is its screen of language development (Helfeldt, 1984). The current screen uses relatively simple tasks which rely primarily on the single word level of expression. It does not include listening skills. Also, the expressive language area added for the New York City edition of the screen requires relatively simple responses.

The Brigance Screen is provided without local or national norms or published technical data (e.g., no predictive validity or reliability information). The review indicates that in addition to a dearth of normative information, its use as a criterion-referenced measure is also limited.

The reviewer was critical of the mastery levels for some Brigance skill areas. Although the screening scores might identify students who may need remedial help, score distributions reveal a ceiling effect of the Brigance scores. The ceiling effect severely limits the usefulness of the screen for identifying gifted children. In fact, in recommending students for further evaluation, it might be as "helpful" to rely on chance alone as to rely on Brigance Screen scores.

When the review format from the Center for the Study of Evaluation Test Evaluation System (1972) was used to rate the Brigance Screen, the Brigance fared relatively poorly.

Our reviewer also examined the Kindergarten Brigance Screen, Spanish version (K.B.S.S.). This instrument, designed to be administered in Spanish, has ten subtests measuring nine skill areas. It does not include the Picture Vocabulary, Numeral Comprehension, and Prints Personal Data subskill areas included in the Brigance K and 1 Screen.

The testing expert found insufficient validity data -- content and criterion -- and noted some item bias (difficulties in translation and cultural use of certain body parts) on this version.

There are a few limitations of the K.B.S.S. which parallel those of the Brigance Screen, e.g., a ceiling effect limits the K.B.S.S.' ability to identify gifted children. No reliability data are available for the K.B.S.S. There are some ambiguous directions for screening administration which further limit the reliability of the screen (e.g., saying an aide can administer the screen and then saying that the judgment required would require a well-trained person to administer the screen). The developers urge flexibility in screen administration (including variations of test directions) to accommodate regional variations. Such changes seem likely to further lower any reliability estimates.

Overall, the testing expert found little evidence to recommend use of the K.B.S.S. in New York City.

New York City data. Because of the lack of published technical data, data provided by the O.E.A. All-Day Kindergarten evaluation were reviewed. The All-Day Kindergarten evaluation reviewed fall or entry Brigance K and 1 Screen scores for 2,642 1983-4 kindergarten students. Fall data showed that 38 percent were referred to the superintendent as possibly gifted and

only one percent of the students were recommended for possible special education referral. The evaluation provided evidence that the Brigance instrument and cut-off scores identify many strengths and very few weaknesses.

The O.E.A. A.D.K. evaluation staff also studied the reliability of the Brigance Screen. The overall reliability was quite impressive, particularly when the difficulties of testing young children and the ceiling effect noted in the A.D.K. sample are considered. One estimate of internal consistency was calculated on Brigance results for 104 1984-85 five-year-old Head Start students one month (August) before they started public school in New York City; the internal consistency reliability estimate was .91. The evaluation staff also calculated the test-retest reliability overall and by the same and different examiners by readministering the screen to 98 kindergarten students. The test-retest reliability coefficient was .91. Significantly lower reliability coefficients was found for children screened by different screeners (52 children,  $r = .36$ ) than for those rescreened by the same screeners (46 children,  $r = .95$ ). A comparison of tester reliability revealed marked variability between screeners, which adversely effects the instrument's reliability. This indicates that additional training for screeners might increase the accuracy of measurement.

The evaluation staff also calculated test-retest and internal consistency reliability coefficients for each Brigance skill area for which there were sufficient numbers of items. Internal consistency reliability estimates for Color Recognition, Visual Discrimination, Gross Motor Skills, Identification of Body Parts, and Numeral Comprehension were over .70, a minimally acceptable level. Test-retest reliability estimates were similar to

internal consistency estimates except for Visual Discrimination and Gross Motor Skill Areas. In those skill areas the test-retest reliability coefficient was lower. Also, when differences in reliability were significant, skill areas' test-retest reliability coefficients for the same screeners were higher than that for different screeners. Overall, skill area interpretation of the Brigance is limited; reliability estimates for some skill areas' indicate that meaningful interpretations are difficult to make. Although some skill area scores should not be used alone, total Brigance scores appear to be reliable.

#### GRADES TWO TO NINE

The bulk of our data describes screening for kindergarten and grade one. Because the majority of the sample's screening experience was with students at these early grade levels, the description of the screening provided at the higher grades is far less developed than that offered for kindergarten and grade-one screening. Staff described screening for grades two to nine as a far less systematic screening program than that available for kindergarten and grade one.

In grades two through nine, the New York City Observational Checklist was the primary screening instrument -- used for all but the cognitive skills area. Spring citywide standardized reading test scores were used for cognitive skills.

While most of the coordinators reported using the New York City Observational Checklist and the citywide reading test scores, approximately one-quarter did not respond to the questions regarding these instruments. Coordinators who did describe their experience were decidedly less enthusiastic



about these instruments than they were about the Brigance. They were the most positive about the New York City Observational Checklist as a screen of gross motor skills.

Most coordinators described the checklist as only minimally helpful in identifying potentially gifted (approximately 60 percent) or handicapped students (approximately 47 percent). Many (40 percent) coordinators did not assess the appropriateness of the current cutoff scores, yet a substantial number (27 percent) felt these cutoffs inappropriately identified too many children as gifted and too few as potentially handicapped. The coordinators reported finding even less of a relationship between screening results from the checklist and actual classroom performance for gifted (35 percent reported no relationship) and handicapped (24 percent) students than results from the Brigance.

Only one-third (34 percent) considered the checklist instructions appropriate for students' age and grade levels, and 61 percent found the Checklist culturally fair.

Coordinators assessed the standardized reading test, the measure of cognitive skills more favorably -- almost half (47 percent) found it at least a moderately adequate screen of cognitive skills. Sixty-one percent found it moderately helpful in identifying gifted and handicapped (46 percent) students. Most coordinators found a positive relationship between test results and classroom performance for possibly gifted (51 percent) and handicapped (45 percent) students.

Many coordinators felt the reading test's cutoff scores appropriately identify potentially gifted (35 percent) and handicapped (30 percent)

students. Most consider the instructions at least moderately appropriate (66 percent), and the overall instrument culturally fair (73 percent).

Most staff felt that additional skills needed to be included in a more appropriate screen. Coordinators were the staff group most likely to report that no additional skills needed to be included to appropriately screen for potential giftedness (42 percent) or handicapping conditions (47 percent). Coordinators who felt that skill areas should be added to a screen for giftedness suggested including creative skills (including artistic abilities), problem-solving skills, language skills, analytic skills, general cognitive skills, social skills. They also cited the need to include teachers' assessments of each student. Other staff suggested adding measures of human relations or social skills, affective or emotional development, artistic development, creativity, reasoning, problem-solving, mathematics, and fine motor skills related to those children use in school. The staff suggesting skills to be included in a screen for potential handicaps mentioned cognitive skills, social skills, reading recognition, math concepts, visual and auditory memory, and abstract reasoning. Again, coordinators recommended increasing teacher input regarding the overall student performance.

There was less consensus among coordinators regarding the timing of screening for older students. Over one-third (37 percent) of coordinators reported that screening for grades two to nine was done in the spring.

The turnaround time for screening results at these grade levels was considerably longer and less satisfactory than the turnaround time for kindergarten and grade one results. Although 33 percent of the coordi-

nators indicated that the screening results were returned in one week to one month, ten percent reported a turnaround time that was "within a year" (generally seven to nine months). This unusually long turnaround time seems a function of certain districts' use of the citywide reading test or the state reading test for part of screening in grades two to nine. Since these tests are scored at the end of the school year, the final screening results which rely on them cannot be released before that time. Slightly fewer than half (46 percent) of the coordinators consider this turnaround time fast enough for their needs.

The grades two to nine screening results were of even less use to districts than were the younger students' results. Three-quarters of the coordinators reported that their districts used the results minimally, if at all, during the year. Well over half of the coordinators reported at most minimal or no use for the major screening purposes; viz., placing students in remedial (64 percent) or enrichment (69 percent) programs, and referring students for further testing (55 percent). As with the kindergarten and grade-one screening, the time that elapses between school entrance and screening and receipt of results detracted at least moderately from the use of screening results (cited by 60 percent and 48 percent of coordinators respectively). The type of scores reported (36 percent), the content of summary reports provided (29 percent), and the ease of interpretation of results (27 percent) also detracted notably from the utilization of results.

The screening arrangements made for non-English speaking students in grades two to nine were even less systematic than those made for younger

students. Over one-third (37 percent) of the coordinators indicated that no arrangements at all were made for these students. One-quarter of the coordinators reported using bilingual personnel to translate the screen. Other arrangements included asking a sibling or friend to translate, waiting another year to screen, and hiring a translator. A few coordinators noted their difficulty in finding translators for "exotic" languages such as Turkish. Almost half (47 percent) of the coordinators found these foreign-language arrangements to be totally inadequate. The remaining respondents were equally divided in considering the arrangements either moderately or minimally adequate. Forty-one percent of the coordinators considered the screen inappropriate for LEP students in grades two to nine, largely due to the inadequacy of translation arrangements.

The majority of the coordinators indicated that for these grades, classroom teachers would be the most appropriate staff to conduct the screening, although 30 percent thought screening teams would be more suitable. Alternative suggestions included relying on reading teachers, guidance counselors, health aides, and resource teachers.

#### HIGH SCHOOL

High school students receive perhaps the least systematic screening provided. Various school staff (e.g., English and Physical Education teachers, homeroom teachers, guidance counselors) complete a New York City Observational Checklist on each new entrant, and their citywide reading and mathematics achievement test scores are noted as cognitive skills indicators. Currently, there are no systematic arrangements for screening LEP students at this level.

The bulk of information on screening high school students comes from three high school borough administrators. The other staff contacted have virtually no experience with the screening of secondary school students.

The primary screening instruments used in the high schools were the New York City Observational Checklist and, as measure of the cognitive skills area, the annual citywide reading and mathematics achievement tests. In the Bronx and Manhattan, the Supplemental Expressive Language Checklist was also used to assess language and articulation skills. While screening began in the early fall, most high school students were screened as they were admitted throughout the school year.

The borough coordinators reported very limited overall satisfaction with the screening. Two of the three felt the current screening instruments did a minimal job of identifying students with possible handicaps, and they reported even less satisfaction with its screening for giftedness. Similarly, the major strength identified by two of the three borough coordinators was the awareness of schools' "responsibility to identify students requiring further study." They were quite specific about the primary weaknesses of the current screening; viz., inadequate screening instruments and their measures of the prescribed skill areas, inadequate funding for screening, lack of uniformity in screening procedures, difficulty checking the validity of schools' reports, limited availability of placements for potentially gifted children, and lack of coordination of screening responsibilities.

While the high school coordinators would prefer that screening be conducted in the spring or summer before school entry, they indicate that

it cannot be done before September given the large number of walk-ins" requiring screening throughout the year.

Paralleling the preference expressed by staff concerned with screening at lower grade levels, the high school borough coordinators reported that there should be differential weighting of skill areas, with cognitive skills weighed most heavily, followed by receptive language, expressive language and articulation, fine motor skills, and gross motor skills.

When questioned specifically about the screening instruments used, the high school coordinators described the New York City Observational Checklist as minimally to moderately adequate in assessing readiness in the mandated skill areas, and only minimally helpful in identifying possibly gifted students. They found the measures slightly better at identifying students who may be handicapped. Two of the coordinators were not sure to what degree screening efforts were confirmed by actual classroom performance for possibly gifted students.

The high school coordinators felt the cutoffs were largely appropriately identifying handicapped students, but inappropriately identifying too few children as gifted.

When asked if any additional skills should be included in the skill areas measured to assess giftedness, they cited art, music, and additional fine motor, expressive language, and articulation skills. The borough coordinators were largely satisfied with the skills included in the screen for potential handicaps, though one coordinator would prefer to have an indicator of emotional difficulties included in the screen.

The borough coordinators were at best moderately satisfied with the time allowed to administer the screening tasks, the suitability of instructions, the cultural fairness of the instrument, and the level of difficulty of the items included.

When asked how adequate they have found the translation arrangements, the most the high school borough coordinators could say for Spanish translation was that it was minimally adequate. They found the translation arrangements made for "more exotic" languages "not at all adequate." As occurred in grades two through nine, there were no systematic arrangements made for LEP screening at the high school level. The translation arrangements made varied by individual school. The borough coordinators found the current screen inappropriate for LEP students, particularly for Southeast Asians.

Each of the borough coordinators had encountered administrative/logistical problems; viz., poor coordination of the screening within the school, the "carryover of incomplete screenings for three years," and communication to the schools [that] would be better [if done] by computer."

If teachers are notified at all of the screening results, it usually takes "a long time." None of the high school borough coordinators considered this adequate.

Two of the borough coordinators considered screening teams the most appropriate staff to conduct the screening; the other coordinator felt the guidance staff would be the most appropriate.

Each of the high school borough coordinators reported that the screening results were used in their boroughs last year. The results were most frequently useful in referring students for further testing. They were

somewhat less useful for placing students in remedial programs, than for placing student in enrichment programs. Apparently, at the high school level, screening results are not used to refer potentially gifted students into new programs, since few programs exist beyond the existing advanced placement or enrichment course. Borough coordinators reported that the type of scores reported, the amount of turnaround time for the receipt of results, and the time elapsed between school entrance and screening detract from the utilization of the screening results within their districts. They felt the screening would be more useful with computerized communication to schools and with "better instruments for prompt identification leading to proper programming."



#### IV. CONCLUSIONS AND RECOMMENDATIONS

##### Conclusions

Chapter 53 screening is intended to screen all new entrants in a timely fashion (by December 1 or within 15 days of a student's school entry) to facilitate early delivery of special services or intervention where indicated by more thorough evaluation. Ultimately, it is intended to aid instructional planning. Screening is to be provided to all new entrants equitably -- that includes a fair and unbiased screening for LEP students.

There are decided strengths of screening as it is currently conducted. A large number of kindergarten and grade-one students receive full early individualized screening. The screening effort makes staff aware of students' strengths and limitations. It reminds staff of children's uneven development, of the necessity of early screening, and of the possibility of modifying instruction to meet the student needs identified.

There are also pronounced limitations of screening as it is currently conducted. This survey identified some of the major problems -- many of which can be remedied without major effort.

The program does not adequately provide services for all new entrants (kindergarten through grade 12) by using wide-range measures that are capable of identifying potentially disabled and potentially gifted students.

- The screening program does not screen all LEP students in their native languages.
- As it is currently provided, screening is not always conducted in the timely manner required by the state legislation (i.e., for those students whose screening is only completed in April). Many

Children, particularly LEP students, remain unserved for the bulk of, if not all, their school entry year. By the end of the last school year (1984-85), 37 percent of the LEP students and 15 percent of the English-dominant students requiring screening had not been completely screened. Nine percent of the LEP students and 4 percent of the English-dominant students had not been screened at all by the end of their entry year.

Among the students who are completely screened, many are screened so late as to have been moved from one program to another in mid-year.

The promise of early screening and intervention would more likely be met if screening were conducted before students actually entered school, and if teachers were sent results much more quickly. In many instances, the results never get to the teachers. The delays in administering the screen and in transmitting the results to teachers render the screening results considerably less useful than they could be.

- There is substantial variation in the screening offered students in different districts, and to students from different cultural backgrounds.
- Staff report that the cutoff scores currently used inappropriately identify too many students as potentially gifted, and too few students as potentially disabled. Children with severe limitations are identified, but children with less marked difficulties are not. The actual referral data currently available do not indicate

whether Chapter 53 screening has made a difference in referral rates for potentially gifted or disabled students.

- A major part of this review focused on technical aspects of the primary instrument. The reviews were mixed. Coordinators and screeners commended its ease of administration, brevity, and cost-effectiveness. Most staff -- coordinators, screeners, teachers -- considered the Brigance seriously limited in its content. They found the results it provided more indicative of a child's prior home and school teaching experience, than a function of a child's capacity to learn. It poorly distinguishes potentially gifted students. There were also mixed views on its adequacy for identifying potentially disabled students. Staff considered the Brigance inappropriate for LEP, shy, or immature students. The technical expert was even less enthusiastic, largely on the basis of insufficient published technical data.

While staff are aware that "there are no magic instruments," and that changes are needed in the screening program beyond the instrument, there was strong sentiment that the current primary instrument was inappropriate and should be replaced.

- Currently, Chapter 53 emphasizes kindergarten and grade-one screening, with disproportionately less emphasis on screening of grades two through twelve. The latter grade levels represent 43 percent of the students who need to be screened.
- Screening for high school students is far from adequate. Perhaps the most compelling indication of the limitations of screening

provided at this level could be found in the figures of screening conducted. Among the high school students requiring screening in 1984-85, just over half (54 percent) were fully screened. Ninety-six percent of the LEP high school students (and 30 percent of the English-speaking students) had not been fully screened by the end of the year. Beyond the limitations of the screening instruments used, and the methods of administration, are the inadequate placements, particularly for students identified as potentially gifted. Staff involved with screening at the high school level indicate that many students are not served appropriately.

### Recommendations

The following recommendations are largely related to the objectives of the screening process, its administration, and the instruments used.

- There needs to be a centrally-issued specification of critical terms in the screening process. This could be expected to facilitate consistent screening within and across districts (e.g., to clarify the purpose of screening, that is, to grossly identify students who may have exceptional strengths and limitations rather than to "accurately test" the acquisition of learned material) and, over the long term, to consistently shorten the turnaround time. In the survey of staff, it became apparent that the basic objectives of the screening program needed to be reaffirmed. All of the groups involved in the screening process should be informed of the objectives, and the instruments used should appropriately reflect these goals. As it is currently

implemented, there are many misconceptions regarding the purpose of screening. It is not clear to many involved if the screening is intended to ascertain a child's ability to learn, or to "test" mastery of what the child has already learned. Many staff variously described screening as "testing", "evaluating", or "screening out" children with disabilities. Others expected it to be a comprehensive assessment. Still other staff view the screening outcome as placement in special services, rather than as a more limited indication of whether or not a further, more comprehensive evaluation is necessary.

- The program could profit from a better integrated effort of concerned staff. There needs to be ongoing communication between and involvement of screeners and teachers. In addition, relevant sections (e.g., Committee on the Handicapped, Division of Special Education, Early Childhood, Gifted and Talented, Division of High Schools, Office of Bilingual Education) and the Chapter 53 program staff need to work together on such issues as program and staff development.
- Similarly, there is a need to develop and maintain an ongoing relationship with New York State screening staff and screening personnel from other major cities to remain as current as possible on screening developments.
- In establishing cutoffs, the basic screening purposes should be considered, viz., to refer children for further evaluation for potential disabilities and/or giftedness. At face value, it would

seem that systemwide referral rates of 30 percent as potentially gifted and one percent as potentially disabled do not appropriately reflect actual student needs.

- A screening program needs to be available for students from kindergarten through grade 12. There is a particularly urgent need to provide screening services for high school students. Staff comments, as well as the actual screening figures, indicate that students at this level are only minimally served.
- LEP screening needs to be more equitable. We are not currently consistently providing screening for students from all backgrounds. LEP students need to receive full screening services, in a timely fashion, in their home languages, in a manner (i.e., using measures) that is culturally unbiased. Toward this end:
  - Efforts must be made to identify the child's dominant language as early and as accurately as possible;
  - every child should be assured of being screened in their dominant language by a screener fluent in that language in a manner that is culturally appropriate; and
  - new instruments need to be developed for use with LEP students. The instruments developed by the O.B.E. staff in Chinese, Haitian-Creole, and Korean during the 1983-84 school year should be examined.

Admittedly, this promises to be a costly endeavor, but a necessary one. More adequate funding for LEP screening needs to be secured.

- Measures should be appropriate to identify disabilities and gifts in each developmental area. The measures should provide results more indicative of a student's ability to learn, than of prior home and school teaching experience. Instruments should be provided with better (i.e., more sound) technical data than is available for the instrument currently used. Age-norms are the most urgently needed data.
- The follow-up procedures need to be improved. Often, teachers are informed of the results late, if at all. In addition, many staff reported very slow referrals, along with instances of no referral -- despite a student's clear need for additional services. Support services for teachers also need to be developed. This could be accomplished with input from relevant departments (viz., C. and I.'s Gifted and Talented and Early Childhood units, O.B.E., D.S.E.).
- It may be easier to secure the necessary cooperation from schools if the screening program is developed as the initial component of an overall testing program -- rather than as an isolated entity.
- More administrative support needs to be given to ease the logistical burden of screening (e.g., providing ample written explanations of screening to the schools, allotting adequate space and time for screening activities, and limiting the administrative paperwork as much as possible).
- Turnaround time must be shortened. This would clearly render the screening more useful -- by getting information to the teachers

earlier, we could hasten any necessary further evaluation and any indicated intervention. Staff have suggested that computerization of the screening process would substantially aid this situation.

Screening is a major responsibility of the New York City public school system. It is, admittedly, an unwieldy task, but given the resources available in this system, a manageable one.

Because of other changes now being made in the screening program, the Board now has a unique opportunity to implement some of the recommendations developed from these review efforts. The accomplishment of many of these recommendations may be within reach. Changes in the screening program being considered should be looked at in light of their capacity to address these primary concerns.



## Bibliography

Brigance Diagnostic Inventory of Basic Skills. Woburn, Massachusetts:  
Curriculum Associates, 1976.

Brigance Diagnostic Inventory of Early Development. Woburn, Massachusetts:  
Curriculum Associates, 1979.

Brigance K and 1 Screen for Kindergarten and First Grade. North Billerica,  
Massachusetts: Curriculum Associates, 1982.

Helfeldt, J.P. Test Review: The Brigance K and 1 Screen for kindergarten  
and first grade. The Reading Teacher, May 1984, 820-824.



5. COGNITIVE SKILLS

Grades 2-9 to be screened with a New York City Achievement Test.  
High school grades 9-12 to be screened with PSEN test.

6. ARTICULATION SCREENING

Please refer to criteria for articulation screening on the back page of this form.

Almost Always      Sometimes      Rarely

A. PRODUCTION OF SPEECH SOUNDS

- |  |                          |                          |                          |
|--|--------------------------|--------------------------|--------------------------|
| 1. Does the student <u>substitute</u> sounds?                            | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| 2. Does the student <u>omit</u> sounds?                                  | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| 3. Is it difficult for you or others to understand the student's speech? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |

R. SPEECH RATE & FLUENCY

- |   |                          |                          |                          |
|---|--------------------------|--------------------------|--------------------------|
| 1. Is the student difficult to understand because of slow or rapid speech?                | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| 2. Does the student "get stuck" or repeat speech sounds or parts of words?                | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| 3. Does the student appear to be uncomfortable with speech rate or fluency when speaking? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |

**EXPRESSIVE LANGUAGE SCREENING**

<b>A. LANGUAGE FORM (Structure)</b>	<u>Almost Always</u>	<u>Sometimes</u>	<u>Rarely</u>
1. Does the student have difficulty using a variety of words such as nouns, verbs and adjectives?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
2. Does the student omit words such as prepositions, articles and pronouns?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
3. Does the student have difficulty expressing ideas in logical order?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<b>B. LANGUAGE USAGE</b>			
1. Does the student have difficulty expressing ideas and thoughts in response to the questions?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
2. Does the student have difficulty expressing himself/herself in informal situations?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
3. Is the student's use of language irrelevant to the situation?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

\*\*\*\*\*

The Supplementary Checklist for Screening Expressive Language is to be used only for those students who have "Rarely" checked on all 6 items.

**SUPPLEMENTARY CHECKLIST FOR SCREENING EXPRESSIVE LANGUAGE**

	<u>Rarely</u>	<u>Sometimes</u>	<u>Almost Always</u>
A. Does the student use a varied vocabulary of unusual scope?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
B. Does the student ask a LARGE number of <u>unusually</u> stimulating and well-constructed questions?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
C. Does the student use an unusually wide variety of well-constructed sentence forms to express thoughts and feelings?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
D. Is the student unusually creative in the use of language?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

## DEFINITION & INTERPRETATIONS FOR ARTICULATION SCREENING CHECKLIST

### A. ARTICULATION (Production of Speech Sounds) -

This relates to the child's general intelligibility, or how well-understood s/he is as a result of clear, concise speech sound production. (Because of differing developmental rates among children and the fine-motor skills involved with the production of certain speech sounds, such as "s" and "sh", articulation errors may persist through 2nd grade and then be outgrown.)

#### 1. Sound substitution - Some common examples of sound substitutions are:

- "th" for "s" ("thun" for "sun")
- "y" for "l" ("yemon" for "lemon")
- "w" for "r" ("wabbit" for "rabbit")

#### 2. Sound omission - Sounds may be left out from the beginning, middle or end of a word. Some examples are:

- "un" for "fun"
- "he\_o" for "hello"
- "hou" or "house"

#### 3. Understanding the child - The following factors should be considered:

- If the child must repeat what s/he says often.
- If other students make fun of the child's speech but feel uncomfortable about asking him/her to repeat.
- If the child begins to withdraw because s/he is not understood.

### B. SPEECH RATE & FLUENCY -

The sounds of speech have a natural flow or rhythm. Interruptions in this flow often sound "wrong" to the listener and may sound and/or feel "wrong" to the speaker.

#### 1. Too slow or too fast - Words may get jumbled or parts of words unnaturally "clumped" or clustered together when speech is too fast or too slow. In addition, the attention of the listener may be lost.

#### 2. "Getting stuck" - Some children "get stuck" on speech sounds, repeat speech sound or word syllables, prolong parts of words, or have spasms of the speaking mechanism when they attempt to speak. (This pattern of behavior is commonly referred to as "stuttering".)

#### 3. Reaction to speech - Some children are uncomfortable about the pauses, repetitions, etc. in their speech, and may appear very nervous or withdrawn in a speaking situation.

**NOTE:** The Expressive Language and Articulation Observation checklists have been developed by the Speech Services Unit. They are designed to be administered by the classroom teachers and not the speech teacher.