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ABSTRACT

The paper reports on the Vanguard Program, (Houston, Texas), an interdisciplinary, multilevel instructional program for gifted and creative children. The program, one component of Houston's Magnet school approach designed to comply with desegregation rulings, developed broadened criteria for identifying gifted minority students. Vanguard has expanded to 11 campuses: six elementary schools, three middle or junior high schools, a senior high school, and a new setting which integrates an elementary Vanguard program with hearing impaired students. Program evaluation incorporated the use of ethnographics (analytic descriptions or reconstructions of intact cultural scenes and groups that delineate shared beliefs, practices, artifacts, folk knowledge, and behaviors of groups of people). Proposed data collection techniques are described as well as evaluation sequences and monitoring and audit procedures. (CL)

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**Evaluation of the Vanguard Program:**

**A New Approach to Assessment of Programs for the Gifted and Talented**

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## Evaluation of the Vanguard Program:

### A New Approach to Assessment of Programs for the Gifted and Talented

This paper is a status or field report on the development of an evaluation design appropriate for assessment of a program for gifted and talented students in a large metropolitan area. Certain characteristics both of the program and of the student body made conventional pre- and posttest evaluation designs inappropriate; in addition, program administrators wanted information about the program not usually collected in standard evaluation. This paper details (a) the genesis of the program; (b) its unique characteristics; (c) a discussion of methods for evaluation appropriate to programs of this type; (d) the evaluation design and data collection techniques utilized in the evaluation; and (e) a description of the progress made so far in implementation of the evaluation design. Our goal is to develop an evaluation model which (a) involves both program and evaluation personnel in planning and implementation of the evaluation, and (b) is appropriate for assessment of programs for exceptional children.

#### Genesis of the Program

In 1972, the Houston Independent School District began its first program for educationally gifted children. Called Vanguard, it emphasized interdisciplinary and multi-level instruction. It was specifically designed to assist in the development of creative and gifted students through individualized teaching methods which allowed opportunities for the student to advance as rapidly as they were able.

In 1975, the Vanguard program was incorporated into HISD's Magnet School program. Establishment of the Magnet School Program was one of many approaches which HISD had used in order to comply with Supreme Court decisions regarding desegregation of public education. Other options such as freedom of choice, school pairing, and integration of school faculties had not achieved the desired results; they had, in fact, proven to accelerate the degree of racial isolation in the Houston schools. The first phase of the Magnet School program was implemented formally in the 1975-1976 academic year; it involved the restoration of equidistant school attendance zones and the establishment of approximately 40 Magnet programs. Some of these, such as the Vanguard program, were developed from existing HISD programs; others were entirely new. The establishment of the Vanguard program as a component of the Magnet Schools program brought a new dimension to recruitment and management of the gifted and talented program.

The main thrust of Magnet School philosophy is to achieve integration of public schools through provision of high quality educational programs. Thus, the race of students and the ethnic composition of both sending and receiving schools are important. The Magnet Schools Program, is intended both to reduce the number of one-race schools in the district and to increase the percentage of students attending integrated schools. This is the primary goal of the Magnet Schools

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<sup>1</sup>  
Magnet School Project Evaluation, 5th Annual Report 1979-1980.  
Research Evaluation and Accreditation, Houston Independent School District

Program, and to that end, each component has both a set number of students who can be accommodated and an ethnic ratio reflecting district-wide ethnic ratios which must be met. While some leeway is allowed to individual programs, in general students with appropriate ethnicity are recruited to fill designated vacancies. At the present time, the required ethnic ratio for Magnet Schools is 35% White and Other and 65% Black and Hispanic.

Traditionally, students have been identified for gifted and talented programs primarily on the basis of high scores on tests of intelligence and academic achievement. Because white middle class and upper SES children tend to do better on such tests than do minority children, programs for the academically talented have tended to exclude Black and Mexican-American children. Since children will display their giftedness in culturally approved patterns minority children often will not show the same behavior patterns as do white children. Teachers expect children to demonstrate their giftedness in ways valued by the major culture. They rarely identify minority children as having extraordinary academic talent. When the Vanguard Program, at that time implemented in two schools, was incorporated into the HISD Magnet Program, new ways of looking at talent and giftedness had to be developed which were appropriate to the dominant purpose of the Magnet Schools Program--the development of integrated education--as well as congruent with maintenance of program integrity and quality. In effect, the criteria for recruitment of students were broadened and became more complex; cultural standards for measuring intellectual talent had to be considered in addition to the more conventional test scores.

After much deliberation, it was determined that Vanguard students should be recruited from varied ethnic and economic backgrounds and demonstrate outstanding ability in two or more of the following areas:

1. intellectual ability
2. creative thinking
3. leadership potential

While test scores still form an important part of the assessment and recruitment process, and while students below a certain achievement level cannot qualify for admission to the program, a variety of data sources are used for identification of students, including samples of writing, and parent and teacher recommendations. The more flexible criteria allow students from different ethnic groups to compete among themselves for places in the program, rather than against students who might be more advantaged educationally or economically. The criteria also allow for the admission of students who might be extremely gifted in some areas, but who need extra help in others. The philosophy of the program states that "By providing a stimulating and challenging environment which encourages interaction with peers, the program will develop the student's basic skills, creativity, and intellectual abilities. Through specialized guidance programs and instruction designed specifically to meet the needs of gifted students, the program will provide opportunities for the student to value himself as a productive person with positive goals."

With continuous and successful participation in the program, the students will be able to identify an area of interest, define the

problem, conduct research using the appropriate skills and techniques, and report the findings. They will be able to identify personal goals and opportunities for contributions to a field of interest and work effectively to realize their objectives."

To achieve these goals, the classroom environment will emphasize interdisciplinary approaches to basic reading, writing, mathematics, research, group and reasoning skills. Opportunities will be provided for every student to explore areas of interest in depth. Through the use of individualized instruction, each student is encouraged in the continual development of his unique potential. Each student will progress at a rate not to be impeded or unnecessarily accelerated by the developmental rate of other students. With stress on the need for self-discipline, the student will be challenged by innovative and creative motivation techniques."

Since 1975, the Vanguard Program has been expanded to eleven campuses: six elementary schools, three middle or junior high schools, a senior high school, and a new campus, which integrates an elementary Vanguard program with a group of hearing-impaired students. Each Vanguard component is designed as a School-Within-A-School, such that while each Vanguard campus has a Magnet co-ordinator responsible for the operation of its activities, building principals also exercise a strong effect on implementation of individual programs. The various programs are dispersed throughout the District to facilitate service to all Houston students; care also is taken to locate programs in minority areas to facilitate the enrollment of Black and Hispanic

students. The program has proved to be popular; notwithstanding the difficulty in recruiting and transporting adequate numbers of minority students for certain programs on the fringes of the Houston area, waiting lists exist for most of the campuses.

Evaluation of the Vanguard Program had followed the design for all other Magnet programs. Each campus established objectives for their own program; yearly audits were made by the District's evaluation staff to assess compliance with these objectives and also with Court-mandated requirements for transportation of students, ethnic distribution of the student body, and ethnic composition of the faculty. As a consequence of the dispersed nature of the program, the variance introduced by building principals, and the opportunity to establish objectives unique to each campus, considerable variation in the programs existed. A desire for a more comprehensive and descriptive form of evaluation was generated by the need by the program director to know the extent to which the program had a separate identity, or whether it consisted in practice of eleven distinct programs.

A request was made to the District's evaluation department to address the following questions:

1. Of what did the Vanguard program really consist?
2. To what extent were the individual campus programs congruent?
3. Was the Vanguard Philosophy-cited earlier--really in evidence in the program?
4. What impact was the program having on students?



5. How did the program compare with other programs for talented students?

6. Was the program really addressing gifted children?

In order to answer these questions, it was necessary to consider a number of constraints.

#### Purposes of the Evaluation

There were a number of reasons why the Vanguard staff wanted a change from past evaluations of the program. First, the program director had designed overall program-wide objectives which required comparisons among the individual campus programs. Second, while the program had grown considerably, detailed descriptive information on program implementation and practice had not been collected. As a consequence, it was impossible to make any solid generalizations regarding Vanguard operations. There were constant pressures to open new schools, but there had been no attempt to assess systematically the effect of the program on students. Most critical, however, were two factors. First, traditional means for assessing program effectiveness have involved collecting pre- and posttest data to measure gains in pupil achievement. Such tests are, however, predicted upon the achievement of normal children, they are relatively ineffective for measuring the gains of children who score at the extremes of norming tables--either very high or very low. In the case of Vanguard students, all had to score a minimum of one and one-half years above grade level to be considered for admission. Not only would it have been unrealistic

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In fact, the achievement of virtually all Vanguard students is considerably higher than one and one-half years above grade level.

to expect dramatic gains in percentile rankings, but regression effects could have given the spurious appearance that the program actually harmed the children. While Vanguard administrators did anticipate improvement in test scores of the lowest students, the general goal was maintenance of already excellent levels of academic achievement.

Another factor was that academic achievement represented only one of the program's objectives for students. Achievement test scores alone could not assess validly such goals as increases in creative thinking, the ability to work independently, and self-awareness. In fact, it is doubtful whether any sort of paper-and-pencil test could serve as a valid means for examining such gains.

Second, the types of questions posed by the program staff were not readily amenable to methods of assessment used previously. Some required eliciting from Vanguard participants--teachers, students, and parents--descriptions of their activities and the meanings they attributed to their actions. Comparative analysis of a variety of types of data were needed. Crucial to the evaluation would be actual observation of classroom activities in order to determine the degree of commonality among the campuses. None of these could be done in a short period of time, and the District's evaluation department had limited resources to devote to the Project. Thus, a modified form of ethnographic evaluation was proposed.

#### The Use of Ethnography in Evaluation

Ethnographies are analytic descriptions or reconstructions of intact cultural scenes and groups (Spradley and McCurdy, 1972) which

delineate the shared beliefs, practices, artifacts, folk knowledge and behaviors of some group of people. The design of ethnographic studies mandates investigative strategies conducive to cultural reconstruction. First, these strategies elicit data which are phenomenological. That is, they represent the world view of the participants being investigated. Second, ethnographic research strategies are empirical and naturalistic. They involve acquisition of firsthand, sensory accounts of phenomena as they occur in real world settings. Third, ethnographic research is holistic. Ethnographers seek to construct descriptions of total phenomena within their various contexts and to generate from these descriptions major variables which affect human behavior and beliefs toward the phenomena. Finally, ethnography is multi-modal; it employs a variety of research technologies (Wilson, 1977). Such an approach seemed to fit the requirements of the requested evaluation.

Three types of data provided by ethnographic research strategies seemed of particular utility in this project:

1. Base Line Data: these include information about the human and technological context of the research population and program setting. They are necessary for identification of social, psychological, cultural, demographic, and physical features of the context; for assessing the impact of the program; and for establishing parameters which could be used for generalizations to and comparison with other settings and populations. In addition, the institutional framework and its relationship with other institutions must be examined for the types of influence it exercised upon implementation and change within

the program (cf., e.g., Apple and King, 1977; Sharp and Green, 1975).

2. **Process Data:** These refer to information determining what has occurred in the course of a curricular program or innovation. The way in which the program, and, in fact, the evaluation, is handled by participants provides valuable data for assessing the impact and success of a program.

3. **Values Data:** These refer to information about the values of the participants, the program administrators, and the policy makers who financed the program. The value implications of what participants do in a program--whose values the intervention supports and whose are neglected--may dramatically affect the manner in which the program is implemented and the degree to which it is disseminated (See Suchman, 1967).

The characteristics of ethnographic research outlined above contribute to providing more integrated base line and process data and to generating more comprehensive parameters for values data than do conventional evaluation designs. Research designs based upon combinations of data collection methods and analysis strategies provide more complete and complex data on phenomena than do unimodal research designs, and as such, are appropriate for complex, multi-modal programs like Vanguard. They possess more credibility because they enhance the reliability and validity of the evaluation results (Denzin, 1978).

Ethnographic strategies can be used in curriculum and program evaluation in two ways: comprehensive adoption of the entire ethnographic process or strategic selection of a few data collection

techniques. The choice between these alternatives is informed by the objective of the research. If the goal is a descriptive product intended to document shared beliefs, practices, artifacts, environments, folk knowledge, behaviors, and subtle patterns of interaction, then the appropriate choice is the development of an ethnography of the entire program. Smith and Keith's analysis (1971) of the establishment of an innovative elementary school and Wax's (1980) documentation of the process of desegregation in five public schools are ethnographies comparable to traditional investigation conducted by anthropologists and sociologists. They offer implicit or explicit explanations to account for the patterns observed. Such ethnographies of organizational or curricular innovations differ from community and tribal studies only in their focus. They are costly, requiring extensive financing and highly trained personnel. Results may be inaccessible for several years. Clearly, such a design was inappropriate for the policy makers and program administrators in the school district.

An alternative is a more limited choice of ethnographic data collection techniques. This provides some baseline, process, and values data, and may also strengthen the validity of instruments developed for assessment. It also may be used in the initial stages of the project to develop categories for structuring the evaluation itself. For example, Hall and Loucks (1977) used limited non-participant observation to assess the validity of a teacher questionnaire designed to determine the extent to which instructors used educational innovations they had been taught in their classrooms. Applications such as this have the advantage of reducing the required time and resources, while producing

results soon available to program administrators.

In the case of this study, we have chosen the latter alternative and given limited resources, we have planned a three year project. Presently, we are midway through the first year. The plan utilizes a combination of data collection techniques, including a continuation of existing audit procedures by which compliance with program-wide and Magnet School objectives, as well as individual campus objectives, can be monitored; design of instrumentation for and collection of baseline data on program implementation and activities--including methods teachers use for assessing student progress; observation of classroom activities; and design of comparative studies. Data collection techniques proposed include the following:

1. Elicitation of participant constructs
2. Interviews with key informants
3. Mapping and enumeration of the physical and social setting
4. Non-participant observation
5. Collection of archival material, records and documents

These strategies and the manner in which they will be used are discussed below.

#### Data Collection Techniques

Eliciting of participant constructs refers to the process of determining the set of "agreed upon" which inform the world of each participant. These include the categories into which people classify items in their physical world; the values which they use to assign meaning to what they do; the categories of knowledge they deem important; the canons of discrimination they use to sort items into categories; and

the rules by which they assign relationships to phenomena in their world (Kimball, 1965). There are a variety of ways to determine how participants in a study define their world. These include specific surveys, sorting and ranking procedures such as q-sort techniques, and procedures which require participants to enumerate all the members of a particular category of things. These constructs, once delineated, can be used as a means for explaining why people behave as they do in their own terms; they also can serve as a basis for comparison with other means for defining and assigning value to similar or identical phenomena.

In the case of the Vanguard program, it was not clear whether or not the teachers and administrators agreed on the general goals and activities established by the program director; it also was unclear whether or not program participants shared a similar philosophy with each other. To this end, the initial phases of the evaluation involved determining what Vanguard teachers thought was unique about the program and how they thought it should--and did--operate. These data are to be used for comparisons among groups of Vanguard participants and as the basis for an observational instrument which will compare what Vanguard participants say occurs in the program and what actually appears to an outside non-participant observer.

Key informants are individuals who possess special knowledge, status, status, or communicative skills and who are willing to share that knowledge and skill with a researcher (Zelditch, 1962). They frequently are chosen because they have access--in time, space, or perspective--to observations denied the researcher. Interviews with key informants can be used as a means for eliciting participant constructs, for

generating historical data, for corroborating observations made by a researcher, and for sensitizing a researcher to specific dilemmas or critical issues which exist within the phenomenon under investigation. In the case of this project, informants include the program director, a number of campus co-ordinators, and certain members of the administrative staff of the District. Other key informants may be identified as the project continues, particularly as investigation of parent and community attitudes toward the program begins.

Formal and informal mapping of a research site involves becoming acquainted with participants, recording demographic characteristics of the population, mapping the physical layout, and creating a description of the general context of the program or innovation under consideration. In this process, census of participants can be taken, key informants may be identified, and a map of the use of time and space can be generated. Much process data may be gleaned as to the way in which participants talk about a program; this in turn can be used to determine the extent to which programs are being implemented uniformly or at all. Since the Vanguard program was implemented on eleven different campuses, and since the host schools varied in the degree to which they had adequate facilities for the program, an early concern has been the extent to which simple physical variation would affect the atmosphere and implementation of the program. In addition, considerable latitude as to curriculum has been allowed, and programs have varied in the degree to which they have maintained stable staffing patterns. These factors needed to be considered in assessing the way the program functioned.

A number of strategies for collecting ethnographic data might be



called "non-interactive" in that they allow a researcher to gather material with little or no interchange with the participants or subjects of a study. Among these are two chosen for this evaluation project: non-participant observation and the analysis of documents and archival materials and records.

Pelto and Pelto (1978) treat non-participant observation as a category separate from participant observation. It involves merely watching what is going on and recording events on the spot. As a completely distinct category, non-participant observation exists only where interaction is viewed from hidden cameras and recorders or through one-way mirrors. When researchers are observing on the scene, which is the case in almost all public school settings, they necessarily will interact to some degree with teachers and pupils. However, to the extent that interference in ongoing classroom events can be avoided, it is desirable. Most of the Vanguard students are accustomed to visitors, such that disturbance can be expected to be minimal; in addition, evaluation staff will use relatively unobtrusive instruments for recording data.

Three forms of non-participant observation are used commonly by ethnographers: stream-of-behavior chronicles, analysis of proxemics and kinesics, and interaction analysis. The first mentioned technique requires accurate minute-by-minute accounting of what a participant says and does and would be excessively time-consuming for the District to implement on a large-scale basis, however some attempt may be made to validate instrumentation by sampling from a small group of classrooms. More generally, the latter two methods will be used.

Proxemics and kinesics are concerned, respectively, with the social uses of space and with bodily movement (see Birdwhistell, 1970); Hall, 1974). Preliminary investigations indicate that Vanguard classrooms utilize time, spatial arrangements, and movement differently than do regular classrooms; further detailed investigation of these patterns appears warranted. In addition, interaction between students and teachers and among students themselves in Vanguard classrooms seems to differ from that found in regular classrooms, even within a single school. Comparative data among the separate Vanguard programs and with other non-Vanguard classrooms will be sought for corroboration.

Finally, base line data can be augmented greatly by the collection and analysis of records, documents and archival materials. These may include textbooks, curriculum guides, memos, enrollment records, minutes of meetings, student records, handbooks, newsletters, lesson plans, student products, diaries, logs, and bulletin board materials. Much of this material already is used in the monitoring of program objectives. It will, however, serve as a means for establishing comparative data among the types of activities offered in the different Vanguard programs, and in Vanguard as compared with other HISD programs for high achieving students.

#### Proposed Evaluation Model

The evaluation model, as it is presently envisioned, is sequential and developmental; the later phases will be shaped by results of earlier phases. Year one will involve the development of instruments, for assessing the program; in years two and three we will initiate com-

parisons of Vanguard with other programs for students with high achievement.

Phase One - Development of an Objective Description of the HISD Vanguard Program

A. Definition of the characteristics of the Vanguard programs.

It will require the following steps, some of which already have been accomplished.

1. Meetings and interviews with Vanguard instructors, coordinators, and program personnel to generate a general set of descriptors for the Vanguard program.
2. Development of a list of characteristics thought unique to Vanguard programs.
3. Development of a preliminary open-ended observational checklist to be used in a sample of Vanguard classrooms.
4. Based upon the above data, development of a questionnaire for teacher feedback on validity of observational checklist and rank ordering of key characteristics of Vanguard.
5. Final production of a low inference classroom observational instrument based upon the descriptive data gathered in observations and feedback from Vanguard personnel.

B. Monitoring of program procedures, objectives, and activities at program-wide and school levels. These include the following:

1. Student recruitment procedures and selection criteria

2. Characteristics of selected students
3. Teacher recruitment procedures and selection criteria
4. Instructional procedures (assignments, expectations, grading, group instructional behaviors, etc.)
5. Characteristics of Physical facilities and resources
6. Management policies and procedures
7. Parental and community involvement
8. Student progress
  - a. academic
  - b. basic skills
  - c. advanced and supplementary skills i.e., individual projects
  - d. social
9. Provision of appropriate inservice for teachers of gifted and talented students

Phase Two - Expectancy Analysis

- A. Design samples of students, parents, teachers, administrators, community persons, Vanguard drop-outs, and qualified students not participating in the Program.
- B. Construct interviews for above samples eliciting ideal and actual characteristics of the Vanguard program, reasons for possible discrepancies between philosophy and practice, and respondents reactions to the program in general. This procedure will be developed first by utilizing open-ended one-to-

one interviews with a small sample from each of the groups. From these results, questionnaires will be developed for distribution to larger samples.

### Phase Three - Assessment of Vanguard Impact

#### A. Literature Review

The characteristics and effects of enrichment programs of other school districts with which the HISD program might be compared will be determined. The literature will be reviewed and a representative sample of school districts contacted for information on enrichment programs in their districts.

#### B. Comparison of programs among individual Vanguard campuses

#### C. Control Group Comparison

The last phase of the evaluation procedures will be to contrast the characteristics of the HISD Vanguard programs to other programs with similar student populations but different curricular approaches. Using the instruments developed earlier in the project, data from other HISD programs (e.g., Magnet, Major Works classes or regular classes) will be collected. Such a step will necessitate the collection of the same type of data on these other HISD programs as that collected on the Vanguard programs.

Phase 1-A is to be conducted by the end of the 1980-1981 school year; I-B is part of the ongoing monitoring or auditing procedures carried out annually for all Magnet Schools. Phase two will begin in the summer of 1981; interviews will take place early in the 1981-1982 school year.

Phase three will begin in 1981-1982 and is scheduled to continue for the remaining two years of the evaluation project. Described below are the evaluation procedures which have been implemented to date:

1. Monitoring of program objectives by collection and analysis of records, documents, and archives
2. Elicitation of the teacher and administrator constructs by which the program is defined
3. Initial mapping and development of baseline data

#### Monitoring and Audit Procedures

The campus level objectives are audited during the school year to monitor both progress being made for each of the campus-level program-wide objectives and compliance with the accompanying action plan, which stipulates special activities which will be implemented in order for the objectives to be achieved. The campus-level objectives and accompanying plan, developed at the beginning of the school year, are coordinated with the program-wide objectives and action plan. The program-wide objectives address the following areas: identification/selection of students, parent/community involvement, academic achievement, and completion of individual projects. The identification and selection objective specifies the number of students to be recruited into the program by the beginning of the 1981-82 school year. The second objective, parent and community involvement, seeks to increase the level of participation from these two groups. The purpose of the academic achievement objective is to maintain the students' levels of achievement while they are in the program. The fourth objective, completion of individual projects, is designed to reflect the unique

features of the Vanguard program. The objectives and accompanying action steps at the campus level were written to reflect the programmatic differences at each campus, e.g. differences in grade levels, enrollment figures, and particular programmatic emphases.

Audits to monitor the objectives and action plan at each of the campuses occur twice during the school year. During a typical audit, site visits by the Research Assistant are made to obtain information on the status of each of the objectives and the degree of implementation for each of the action steps scheduled to occur. The type of information used to determine the status on an objective depends on the outcomes specified for it. For example, if the level of parental involvement is to increase as measured by the number of contacts made with parents during the school year, the number of contacts with parents at the time of the audit is examined. Implementation of the accompanying action plan is monitored by examining previously agreed upon documentation which demonstrates that the action steps in the plan were completed as scheduled. Examples of action steps and accompanying documentation for a parental involvement objective include:

Action Steps	Documentation
1. Organize a parent advisory committee	1. List of participating parents
2. Hold meetings of special interest to Vanguard parents.	2. Attendance lists
3. Plan a variety of interesting functions which will appeal to parents	3. List of functions held the school year

At the end of the year, a final audit is conducted at each of the

campuses to determine the extent to which each of the objectives is achieved. As in the case of determining the status of objectives during the year, the nature of the information used to determine the degree to which objectives have been achieved depends on the specified outcomes.

#### Elicitation of Participant Constructs

At the beginning of the school year, two meetings were conducted to obtain input relevant to the Vanguard evaluation design. The first meeting included Vanguard administrative personnel and members of the district research department. The second meeting included teachers and administrators associated with the Vanguard program. The meetings were designed to generate a general set of descriptors which Vanguard staff apply to program characteristics and their activities. We began with the general question: "What is Vanguard?"

At the first meeting, discussion topics covered the assessment of gifted and talented student performance, the nature of instruction for gifted and talented students, types of activities actually occurring in the program, and potential criteria by which the Vanguard program might be evaluated. The following areas for assessing gifted and talented students were suggested by the participants:

- a. Traditional academic subject areas
- b. Process skills such as synthesizing, research, problem solving, and decision making
- c. Creativity including divergent thinking, fluency, elaboration, originality, and flexibility.



- d. Socialization as indicated by self-responsibility and levels of maturity.

Teachers and administrators characterized the nature of instruction for gifted and talented students as possessing a higher level of cognitive functioning compared to traditional teaching methods. It emphasized less memorization and drill and a greater degree of student self-reliance. They cited as illustrative activities occurring at the individual campuses, including foreign language courses, creative writing, individual student projects, and science workshops at both the elementary and secondary levels. In addition to standardized tests they suggested the following measures to evaluate the Vanguard program: teacher ratings of student behavior; an inventory of student behaviors perceived by Vanguard staff to exemplify creativity, intellectual ability and leadership; and surveys of teachers' and students' attitudes.

At the second meeting, Vanguard teachers and instructional coordinators were asked to provide descriptions of events and activities which actually occurred in their classrooms as well as descriptions of the physical features of the classrooms. Events included types of student-teacher and student-student interactions. Classroom activities covered group activities, delivery of instruction, use of curriculum materials, and individual student work. Descriptions of the physical features included seating arrangements, special interest centers, and rooms for specific functions.

### Interviews with Key Informants

Several informal interviews have been conducted with the program director, who provided initial categories by which our initial meetings were structured. Vanguard campus coordinators have been interviewed both formally and informally as part of the audit procedure. These interviews have served to structure collection of base line data.

### Mapping and Enumeration of the Physical and Social Setting and Non-Participant Observation

Mapping and enumeration of the physical and social settings in Vanguard classrooms has begun with preliminary observations of elementary classrooms. The descriptions include seating arrangements, topics discussed during the observations, and denotation of students who made contributions during the class discussions. Plans for future observations include collecting more information in these areas, the proximity of Vanguard classrooms at each campus, types of materials used, and categories of student-teacher and student-student interactions. The data gathered from these preliminary observations will be used to develop a low inference data collection instrument which would be used by a number of observers after a short training period.

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