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## ABSTRACT

GENESYS is the GENERIC Evaluation SYStem of the Office of Research and Evaluation, Austin (Texas) Independent School District. It is a method of streamlining data collection and evaluation for a variety of projects. GENESYS gathers data from the school system's data bases and reports the following information (characteristics and outcomes) on specified groups of students: (1) student characteristics; (2) achievement; (3) attendance; (4) discipline; (5) grades and credits; (6) dropouts; and (7) retainees. Generally, GENESYS can be run any time after first-semester records are tallied for the current year. Computer programs using the Statistical Analysis System (SAS) have been written and linked to generate standard output on several variables for specific programs. GENESYS can be run for any group identifiable through a computer file. Most of the groups included in the first year were for students served in 1988-89; some were follow-ups of groups served in 1987-88. Overall, 25 programs and 130 subgroups at the elementary, secondary, and kindergarten through grade 12 levels were run through GENESYS in the spring of 1989. Three of the school district programs--Teach and Reach, Kealing Magnet Program, and Liberal Arts Academy--are described in this paper as examples of reports generated by GENESYS. Nine figures detail GENESYS groups and illustrate the three programs evaluated. (SLD)

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ED 324 334

# Evaluation Methodology for the 90's: A GENeric Evaluation SYStem (GENESYS)

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## ORE'S GENERIC Evaluation SYSTEM: GENESYS 1988-89

A Paper Presented at the Annual Meeting of the American Educational Research Association, Boston, 1990

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### GENESYS Groups

GENESYS included a wide variety of elementary, secondary, and K-12 programs in its first year. Students were served in 1988-89 unless otherwise noted. Groups included in this initial year are listed below. Figure 1 references the full reports where results are presented.

#### K-12

- LEP
- PAL
- CIS
- Mentor

#### Elementary

- Teach and Reach
- AIM High
- DARE, 1987-88
- ASSIST

#### Secondary

- Liberal Arts Academy
- Kealing Magnet
- Science Academy -- NSF Grant
- Sixth Graders—1988-89, 1987-88
- TAP—1988-89, 1987-88
- AIP—1988-89, 1987-88
- Title VII
- Project GRAD
- CVAE
- PEAK
- Rice
- Robbins
- WIN
- Zenith
- Johnston Computer Lab
- Dropouts

### GENESYS Description

GENESYS is a GENERIC Evaluation SYSTEM.

GENESYS is a method of streamlining data collection and evaluation through use of computer technology. From year one in 1973, the Office of Research and Evaluation (ORE) has been challenged to evaluate a multitude of contrasting programs with limited resources. By standardizing methods and information provided, GENESYS makes it possible to evaluate a much larger number and variety of programs than would ordinarily be possible. GENESYS gathers and reports the following standard information on specified groups of students:

- Student characteristics
- Achievement
- Attendance
- Discipline
- Grades/credits
- Dropouts
- Retainees

GENESYS can be run for any group identifiable through a computer file. Most of the groups included the first year were for students served in 1988-89; some were followups of groups served in 1987-88. A complete listing is shown in the left-hand column of this page. Three programs are included in this AERA paper as examples.

- *Teach and Reach*
- *Kealing Magnet Program*
- *Liberal Arts Academy*

## **ACKNOWLEDGMENT**

*We gratefully acknowledge the contributions of David Wilkinson (Evaluator), Stacy Buffington (Programmer/Analyst), Leticia Galindo (Evaluation Associate), and Ruth Fairchild (Secretary) to the GENESYS system and this paper in particular.*

## **Evaluation Methodology for the 90's: A GENERIC Evaluation SYSTEM (GENESYS)**

Nationwide, many public school evaluation organizations face the challenge of increasing demands for evaluation information with limited resources in time and staff. Some of this demand is typically prioritized out when setting an evaluation agenda for the year. Particularly problematic are demands for last-minute, instant program evaluation information from sources who cannot be turned down. In this case, staff are typically taken from other projects to pull together hastily the best information available. In the Austin, Texas, public schools, the Office of Research and Evaluation has developed methodology to respond to this challenge--a GENERIC Evaluation SYSTEM called GENESYS.

### **WHAT IS GENESYS? WHY IS IT NEEDED?**

GENESYS is the Office of Research and Evaluation's GENERIC Evaluation SYSTEM. GENESYS is a method of stream-lining data collection and evaluation for a wide variety of projects; it gathers and reports a great deal of information on the characteristics and outcomes for particular groups of students. Computer programs utilizing the Statistical Analysis System (SAS) have been written and linked to generate standard output on a number of variables for specific programs.

GENESYS is the fruition of many years of experience and discussion by AISD's research and evaluation staff. From year one in 1973, the Office of Research and Evaluation (ORE) has been challenged to evaluate a multitude of contrasting programs with limited resources -- especially limited time. The idea of a generic evaluation system has been conceptualized and reconceptualized for years. In 1989, the shrinkage of staff resources, the growth in information needs, and improvements in technical capabilities combined to allow the creation of GENESYS in concrete form. By avoiding more tailored data analyses for each program, valuable outcome information can be provided on more programs than would ordinarily be possible given limited evaluation resources.

GENESYS could not have been implemented in the 1970's. The key element that exists now which was not present then is a data base containing student, teacher, campus, and other information across a span of years. Additionally, the mid-70's computer would have run for days to complete a set of GENESYS analyses and reports; even today's faster computer (3.6 MIPS) works about 30-45 minutes to process the GENESYS computations for one program group.

### **HOW DOES GENESYS WORK? WHAT DOES IT PROVIDE?**

Data-base methodology is used to create a generic evaluation system accessing available, longitudinal data bases using a combination of commercial statistical programs (SAS) and custom computer programming.

Standard evaluative statistics, i.e., test scores, dropout rates, discipline rates, attendance rates, grade point averages, etc., are summarized in a table as well as being converted into a narrative executive summary.

Data are accessed from the school system's data bases including grades, attendance, discipline, dropouts, achievement test scores, special education, limited-English proficiency (LEP), student demographics, etc. through the IBM 4381 mainframe system. The availability of longitudinal data bases enhances the usefulness of the data.

Given a file of those students involved in the program, group, or innovation, GENESYS will provide outcome information for the following variables:

- **GROUP CHARACTERISTICS:** Number served by grade, ethnicity, sex, low income, LEP, overage for grade, special education, gifted and talented;
- **1988-89 ACHIEVEMENT RESULTS BY GRADE:** ITBS, TAP, TEAMS and 1987-88 to 1988-89 ROSE regression trend information;
- **ATTENDANCE, DISCIPLINE, GRADES/CREDITS:** 1987-88 and 1988-89 (four semesters);
- **DROPOUTS AND RETAINEES:** Counts for dropouts and potential retainees as of the end of May, 1989, along with a fall, 1989 update on those actually retained.

Specific definitions for each of these variables are included in Attachment 1. The user is advised to read and refer to the definitions provided to assure correct interpretation of the data.

For each group, three types of summary sheets are produced:

- **THE GENESYS EVALUATION SUMMARY** summarizes information on the group's overall performance on all variables;
- **THE EXECUTIVE SUMMARY** summarizes findings in narrative form and compares the group's data to relevant groups (elementary, middle/junior high, and senior high students).
- **GENESYS DATA BY STUDENT** provides a listing of this information-by student (as applicable) to allow a specific review of student attainment and characteristics (see Attachment 2).

## WHO CAN BENEFIT FROM AND USE GENESYS?

GENESYS is useful to two primary types of audiences.

**PROGRAM** staff, administrators, and members of the Board of Trustees can obtain information on the progress of students involved in particular programs or innovations which would otherwise be unavailable because of scant evaluation resources.

**EVALUATION** staff for various projects can obtain standard information through the GENESYS process for various programs. This provides standard data to allow comparisons across projects as well as freeing up staff time to do more sophisticated analyses for areas not covered or not covered in enough depth by GENESYS. GENESYS print-outs may reveal trends or interesting findings that bear delving into more thoroughly as well.

### **WHAT IS NEEDED TO RUN GENESYS?**

GENESYS needs a file of student names and identification numbers for the program or group which is to be studied before it can be run. Gathering this information is the responsibility of the program or evaluation staff requesting the information. Names and identification numbers can be provided as a list, on a computer disk, or as a description of critical location information on computer files (such as a school and grade list or a course number). Staff must decide whether they want to include all students served for any length of time by a program, those in as of a particular date, or those served a certain length of time (e.g., over three months). This choice is communicated to ORE with the list. In addition, staff are asked to provide a brief program description.

Generally, GENESYS can be run at any time after first-semester records are in for the current year. Of course, information is available for more variables and is more complete at year's end. GENESYS can also be run based on the previous year's data. Attachment 3 provides flow charts for GENESYS.

### **WHAT PROGRAMS ARE INCLUDED IN GENESYS?**

A list of programs and groups included in GENESYS thus far are shown in Figure 1. Overall, 25 programs and 130 subgroups were run through GENESYS in spring, 1989. Results for these programs are included in the ORE reports referenced. Three samples are included in this report--one each for an elementary, junior high, and senior high program (see Attachment 4). A complete set of results for all groups can be found in the GENESYS Technical Report 1988-89 (ORE Pub. No. 88.46). Particular sections are available upon request from ORE.

### **WHAT FUTURE ENHANCEMENTS ARE BEING CONSIDERED?**

So far dozens of great ideas for enhancements and additional reports have been discussed. A new laser printout layout was completed this fall (1989) for the evaluation summary (it is shown in our samples). It is more attractive and easier to understand and use than the original. Some of the most promising ideas for the future are:

- Executive summaries with comparisons made between groups in addition to between a single group and District totals.
- Statistical significance tests with probability levels printed between groups and between pre- and posttest measures.

- A program summary chart similar to the data-by-student report. This program summary chart would compare statistics across multiple programs on a single page.
- More "user-friendly" programming so that noncomputer programmers can submit their own runs.
- A staff summary sheet (similar to what we utilize in the Annual Performance Report to the Texas Education Agency) and a budget summary based on budget codes (similar to the District's budget book).

Thus, GENESYS has come a long way but is very much "in process" as a system.

### FIGURE 1: GENESYS GROUPS- 1988-89

PROGRAM/GROUP	REPORT TITLE	PUBLICATION NUMBER
Sixth Graders, 1988-89 Sixth Graders, 1987-88	ORE's Generic Evaluation System: GENESYS 1988-89	88.40
Kealing Magnet	ORE's Generic Evaluation System: GENESYS 1988-89	88.40
Johnston Liberal Arts Academy	ORE's Generic Evaluation System: GENESYS 1988-89	88.40
Teach and Roach	ORE's Generic Evaluation System: GENESYS 1988-89	88.40
Gifted/Talented (AIM High) Program	ORE's Generic Evaluation System: GENESYS 1988-89	88.40
Transitional Academic Program (TAP), 1987-88	ORE's Generic Evaluation System: GENESYS 1988-89	88.40
Academic Incentive Program (AIP), 1987-38	ORE's Generic Evaluation System: GENESYS 1988-89	88.40
LBJ Science Academy	Targeting New Teachers & Teaching by Novel Techniques: Science Academy of Austin	88.30



**FIGURE 1: GENESYS GROUPS--1988-89**, continued

<b>PROGRAM/GROUP</b>	<b>REPORT TITLE</b>	<b>PUBLICATION NUMBER</b>
Limited-English-Proficient (LEP)	Watching the Progress of Limited-English-Proficient(LEP) Students, 1988-89	88.39
Title VII	Race Against Time: Secondary Title VII Program Evaluation, 1988-89	88.26
Project GRAD	New Initiatives in Dropout Prevention: Project GRAD Final Report, 1988-89	88.36
TAP, 1988-89	New Initiatives in Dropout Prevention: Project GRAD Final Report, 1988-89	88.36
Drug Abuse Resistance Education (DARE), 1987-88	Taking Steps Toward Drug-Free Schools in AISD, 1988-89	88.34
AIP, 1988-89	New Initiatives in Dropout Prevention: Project GRAD Final Report, 1988-89	88.36
Communities In Schools (CIS)	New Initiatives in Dropout Prevention: Project GRAD Final Report, 1988-89	88.36
Coordinated Vocational Academic Education (CVAE)	New Initiatives in Dropout Prevention: Project GRAD Final Report, 1988-89	88.36
Peer Assistance and Leadership (PAL)	New Initiatives in Dropout Prevention: Project GRAD Final Report, 1988-89	88.36
Practical, Effective, Appropriate Knowledge (PEAK)	New Initiatives in Dropout Prevention: Project GRAD Final Report, 1988-89	88.36
Project ASSIST (Assisting Special Students in Stress Times)	New Initiatives in Dropout Prevention: Project GRAD Final Report, 1988-89	88.36
Project Mentor	New Initiatives in Dropout Prevention: Project GRAD Final Report, 1988-89	88.36
Rice Secondary School	New Initiatives in Dropout Prevention: Project GRAD Final Report, 1988-89	88.36
Robbins Secondary School	New Initiatives in Dropout Prevention: Project GRAD Final Report, 1988-89	88.36
Work InceNtive Program (WIN)	New Initiatives in Dropout Prevention: Project GRAD Final Report, 1988-89	88.36
Zenith Program	New Initiatives in Dropout Prevention: Project GRAD Final Report, 1988-8	88.36
Johnston Computer Lab	New Initiatives in Dropout Prevention: Project GRAD Final Report, 1988-8, and Chapter 2 Formula Evaluation 1988-89	88.36 88.31

## WHAT ARE THE LIMITATIONS OF GENESYS?

The GENESYS approach has both positive and negative aspects.

### *On the positive side:*

- GENESYS is objective, statistical, and replicable.
- The cost/benefit ratio for users is positive, with only a little effort needed on their part to obtain a wealth of information. GENESYS is of clear benefit to those who would receive no information at all on a program without it (because resources were too limited to evaluate it).
- The fact that the categories of data and computation methods are the same for all projects makes comparisons possible that may not have been with tailored evaluations.
- GENESYS can monitor progress of students in a variety of programs and identify those in need of additional follow-up. It can free evaluation staff from collecting the basics and allow this focused follow-up.

### *On the negative side:*

- GENESYS can be faulted for being detached, for not even requiring the evaluator to see a student personally, or for not verifying that there were any real programmatic activities at all.
- GENESYS may not provide everything a user would want in exactly the form desired. For example, GENESYS allows a "before, during, and after" look at student attendance and discipline rates for semester-long programs. However, if a program allows continuous enrollment during a semester, it is not possible at this point to look at separate student performance before and during program service within that semester.
- On the technical side, because GENESYS draws on so many large District computer files and program files as well, it uses large amounts of computer memory. Therefore, programs must generally be submitted to be run at night. Because a large number of groups (about 130) were run through GENESYS in 1988-89, it took over a month for all to be run and finalized.

## WHAT HAS BEEN LEARNED IN DEVELOPING GENESYS?

A great deal was learned in this first year about how to define the variables and make the output as easy to understand as possible. Discussions were held several times among evaluation staff (primarily evaluators and computer programmers) refining information needs, discussing formats, and soliciting input on various aspects and problems.

Systemwide evaluation staff coordinated with various ORE, data processing, and project staff to secure project descriptions and files. The computer programmer/analyst assigned to GENESYS spent over half of her time this year developing a series of programs for GENESYS and refining the system to assure it worked smoothly. The relative simplicity of the final GENESYS summary sheets hides a complicated development and production process.

Many computer programs were developed in the fall and tested on program files mid-year. This revealed "glitches" which were worked out before crucial end-of-the year runs. Some additional glitches were discovered in the year-end runs (mostly in new programs added after January and in the production process) which made GENESYS less "push button" than desired; some have been solved already and others will be worked on this coming year.

One facet which took longer than expected was the development of program files and descriptions. Slowdowns were generally caused by the following factors.

- Deciding who should be included on files was difficult for some evaluation staff who did not "know" these programs as they would those fully evaluated. This was also difficult for program staff not used to thinking in "data" terms. Decisions had to be made on whether to include those in a program all year, at least a certain length of time, or at one point in time. A decision was made early-on not to standardize this because needs might vary across programs. (For example, dropout prevention programs need to track all students involved at all in each program.) If a cumulative count was desired, a method needed to be determined of how to update the file and how students added to the program should be treated. For some programs, decisions had to be made whether the programs should be considered year long or semester long. Some files were subdivided into separate files for the subgroups plus a full-year file.
- Deciding what source should be used for files also proved interesting (and sometimes frustrating). School staff could provide rosters, but these could not be updated centrally. Since the goal was to use the computer system files as much as possible, the central computer was generally used whenever possible. Some computer rosters were sent to school staff who were asked to correct any errors directly to the relevant computer file so that it would be updated for future runs. To the extent this was done, central files are now more accurate. To the extent it did not occur, files are not entirely accurate. In either case, program staff were put on notice that the District does depend on central files and will do so increasingly in the future. In the long run, this seems the most productive solution.
- Some information which seemed quite basic for program descriptions proved difficult to collect. Staff interpreted the items differently which meant requesting further information or clarification. Asking how many staff were involved or what the budget was proved difficult or impossible to determine on some

programs locally funded or with mixed funding. Program staff were not used to thinking in those terms, some programs were not isolated by budget codes, and some were simply so complicated that they took more than the time available to determine for a generic evaluation. The process did prove time consuming; one way to reduce the time would be simply to accept what was provided the first time. However, quality and comparability would suffer. Past that, the amount of checking and rechecking which is "reasonable" for a generic evaluation must be defined.

Thus, while GENESYS takes little time for a user, it does indeed take considerable resources for evaluation staff to do the initial programming, coordination, and set-up work. This cost should be reduced as time goes on and formats are accepted. Of course, there are always differences in opinion on formats, and use brings up new needs and questions. This fall, in fact, GENESYS has already evolved into an improved product.

### WHAT CAN WE CONCLUDE?

Crossing the bridge from dream to reality has taken some work. Overall, the result, for the first year of actual development and implementation, appears to be a very useful evaluation tool. Many programs have been written and linked into GENESYS. Single-page charts and narrative summaries have been designed and produced by computer to display results quickly and understandably. GENESYS produced a high volume of information about 25 programs and 130 subgroups.

GENESYS has both positive and negative aspects. On the positive side, GENESYS is objective, statistical, and replicable. A great deal of information is generated with a very low level of effort required by the user. The fact that information is standard allows comparisons across projects that may not have been possible otherwise. By easily providing the basics, evaluation staff can be freed for more sophisticated analyses or process evaluation.

On the negative side, GENESYS can be seen as detached because process evaluation is not a part of the system. While a great deal of information is provided, it may not be exactly in the form desired for some programs. On the technical side, GENESYS draws on so many computer files and program files that it uses large amounts of computer memory and time. From an evaluation standpoint, GENESYS is not really designed for continuous enrollment programs. Because data is reported on a semester or annual basis, changes within a semester cannot be detected. It is also difficult to go back in time for a GENESYS group (unless you have a spring semester program) although it may be possible in the future.

Initial reactions from District administrative staff have varied widely--from delight that a great deal of information was provided on programs, to requests for additional programs, to confusion and/or anger about why all programs were rated on the same standards. Not surprisingly, those with very positive results were happier with GENESYS than those with more neutral or negative results. GENESYS challenges program staff, or even members of the public, to study and interpret the information about programs more closely themselves; evaluators have insufficient time to summarize the data further. Some program staff could not understand why descriptive information was included

(which, in our view, provided context for the type of population served). Others wanted to have only outcome information they deemed relevant to their program reported (which defeats the purpose of a generic system somewhat).

One suggestion from program staff was to add a program response section in which staff could address the findings and highlight what they believed was most important. A number of suggestions have already been made within and outside ORE about additions or improvements to the system.

An approach like GENESYS can be extremely useful to an evaluation unit as well as to education in general. GENESYS provides the means to track the progress of students in a multitude of programs without requiring substantial evaluation resources. This can provide a great deal of evaluation information to program staff on its own but can also free evaluation staff to delve more fully into process evaluation or more sophisticated analyses. Better programs for students can be the result.

To summarize, in the beginning, there was no formal evaluation in education. Then required grant reports, followed by full-blown process and product evaluations, came into being. GENESYS represents a new evolution--an approach which can be a total evaluation or a tool to enhance traditional evaluations by providing basic data simply. We eagerly await reactions to its usefulness.

**GENESYS DEFINITIONS--EVALUATION SUMMARY****PROGRAM MEMBERSHIP--DESCRIPTIVE INFORMATION**

For each program included in GENESYS, ORE or program staff define those to be included (see program descriptions). Most programs or groups are for students involved in 1988-89. Some (e.g., sixth graders, DARE, and TAP/AIP) are for groups served in 1987-88. Descriptive information provided for each program includes:

**NUMBER SERVED:** Total served (may be cumulative, semester, or one point in time count).

**ETHNICITY:** Percentage Other (O) (includes White, Asian, and American Indian), Black (B), Hispanic (H).

**SEX:** Percentage female (F) and male (M).

**LOW INCOME:** Percentage eligible for free or reduced-price meals.

**LEP:** Percentage identified as limited in English proficiency (regular or special education) and served in bilingual, English-as-a-Second Language (ESL), or alternative programs as of the end of the year (or whenever GENESYS was run). Note: Some students "exit" or leave LEP status each May once English proficiency is attained.

**OVERAGE FOR GRADE:** Percentage older than expected for the grade by one or more years (as of September 1). Example: 1st graders 7 or more on September 1.

**SPECIAL EDUCATION:** Percentage of students in special education of any type.

**GIFTED/TALENTED:** Percentage of students in gifted/talented programs. At the elementary level, this means participation in the AIM High Program. Secondary students are counted as gifted if they take one or more honors courses.

**OUTCOME INFORMATION:** Outcome information, unless noted, accesses the most current data available through VSAM files on the computer. Variables include:

**ATTENDANCE:** Mean percentage attendance (days attended divided by days enrolled) for fall and spring of 88-89 and 87-88. Data for 87-88 are for those enrolled in 88-89 program who were active in AISD in 87-88.

**ATTACHMENT 1**  
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**DISCIPLINE:** Percentage of students involved in serious discipline incidents (corporal punishment, suspension, expulsion) in fall and spring of 1988-89 and 1987-88.

**GRADES:** Indicates mean credits earned (CREDITS EARNED), number of F's (#F), number of courses with no grade (NO GRADE), and grade point average (GPA) for high school; indicates grade point averages and F's for junior high/middle school. Information is shown for fall and spring of 1988-89 and 1987-88. A normal course load is five or six classes (2.5 to 3.0 credits) per semester. The grade point average (GPA) is calculated without courses in which no grade has yet been assigned; it includes F's and passing grades based on a point system of 1-100 points with 70 as passing. The grade point scale for converting numerical scores to regular course grade points is included below:

<u>Numerical Scores</u>	<u>Regular Course Grade Point</u>	<u>Honors Course Grade Point</u>
97-100	4.5	5.0
93-96	4.0	4.5
90-92	3.5	4.0
87-89	3.0	3.5
83-86	2.5	3.0
80-82	2.0	2.5
77-79	1.5	2.0
73-76	1.0	1.5
70-72	.5	1.0

(Source for grades and credits: SGR History File--SGRH) (Source for conversion table: Board Policy Manual, Austin ISD, Volume 1)

**DROPOUT:** Percentage of students who dropped out of school in the 1988-89 school year, which includes the summer of 1989. This is the District's annual calendar year dropout rate.

**RETAINED: End of Year:** Percentage of students recommended for retention as of May, 1989. **NOTE:** Some students may not eventually be retained, especially at the secondary level. Successful completion of summer school courses or correction of grades can result in promotion. Also, at the high school level, students repeat only courses failed. A "retained" label simply means students have not earned 5, 10, or 15 credits to be promoted to grades 10, 11, and 12, respectively. Also, some special education categories are listed as retained until schools provide promotion data. **Beginning of Year:** Percentage of students actually retained as of the beginning of the 1989-90 school year. **NOTE:** This figure is based only on students who were in AISD both years. Some students recommended for retention may not have returned to AISD in the fall and would not be included. Therefore, end of year and beginning of year retention percentages should not be compared directly.

**ATTACHMENT 1**  
**(Page 3 of 3)**

**ITBS/TAP:** Median percentiles (%iles) of group along with total sample size by grade (TOTAL N) and number tested (N) in Reading Comprehension (RC), Mathematics Total (MT), and Composite (C). Composite scores include:

Grades 1-2: ITBS Vocabulary, Reading Comprehension, Mathematics Total, Spelling, and Word Analysis

Grades 3-8: ITBS Vocabulary, Reading Comprehension, Mathematics Total, Language Total, and Work Study Total

Grades 9-12: TAP Reading Comprehension, Mathematics Total, Written Expression, Using Information, Social Studies, and Science

**TEAMS:** Percentage (%) and number (N) tested who mastered each test--Reading (R), Language Arts (LA) for Exit Level TEAMS,

Mathematics (M), and Writing (W). Mastery levels are set yearly by TEAMS based on a scale score of 700 on each test.

**ROSE:** The Report on School Effectiveness (ROSE) compares Reading Comprehension (RC) and Mathematics total (MST) grade equivalent (GE) scores for spring, 1988 (88) and 1989 (89) to determine if gains achieved are above (+), below (-), or at (=) predicted levels based on regression analyses. All students in a grade in a program are treated as a group. ROSE predictions for groups with less than 20 students (\*) are not reliable (and are therefore not shown). The predicted score (PRED SCR) for the group is shown for reference.

All AISD comparison statistics were defined as shown above. Students were included if:

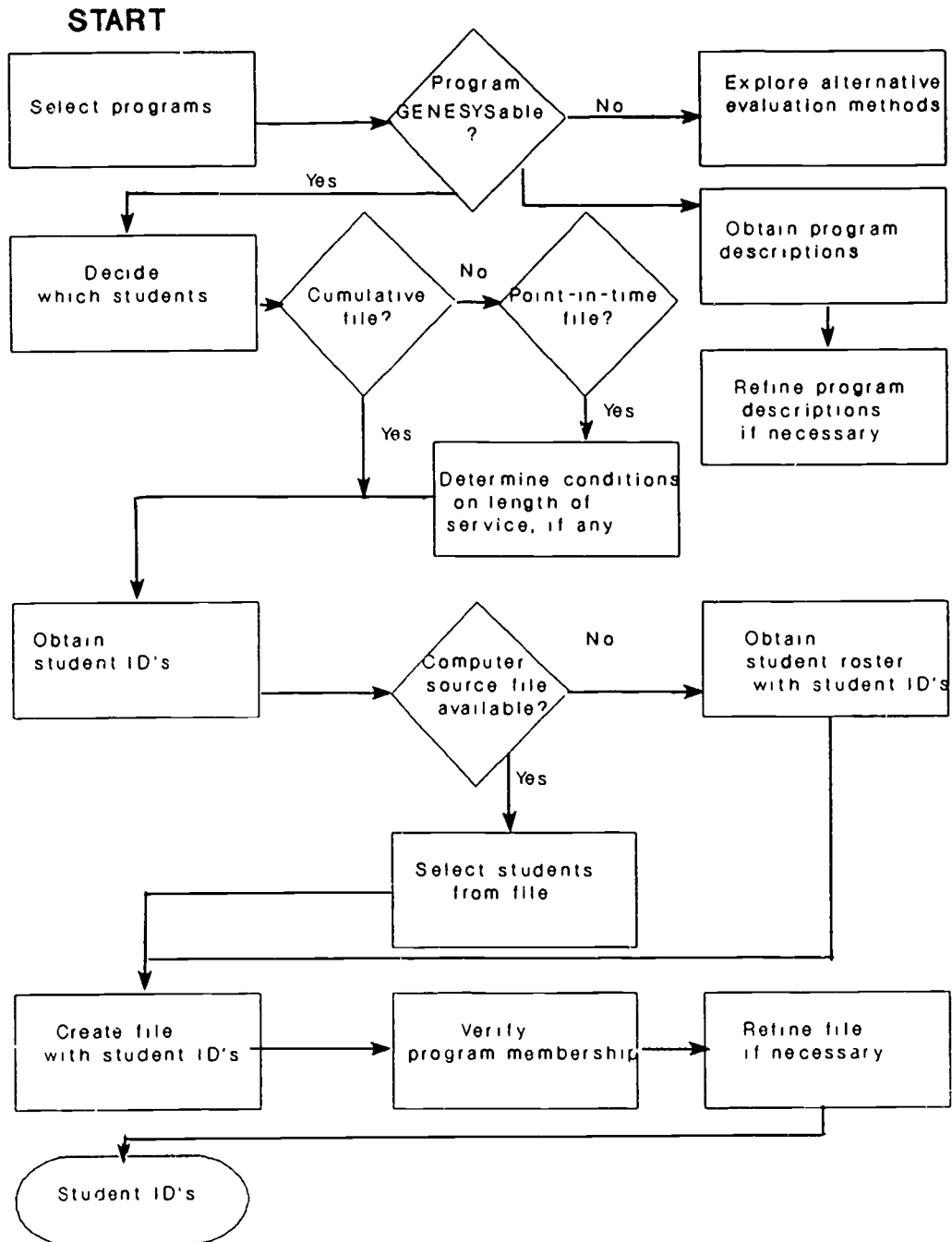
- o In grades pre-K through 12.
- o Actively attending a regular campus as of the end of 1988-89 (Rice and Robbins were included for high school but not middle school/junior high);

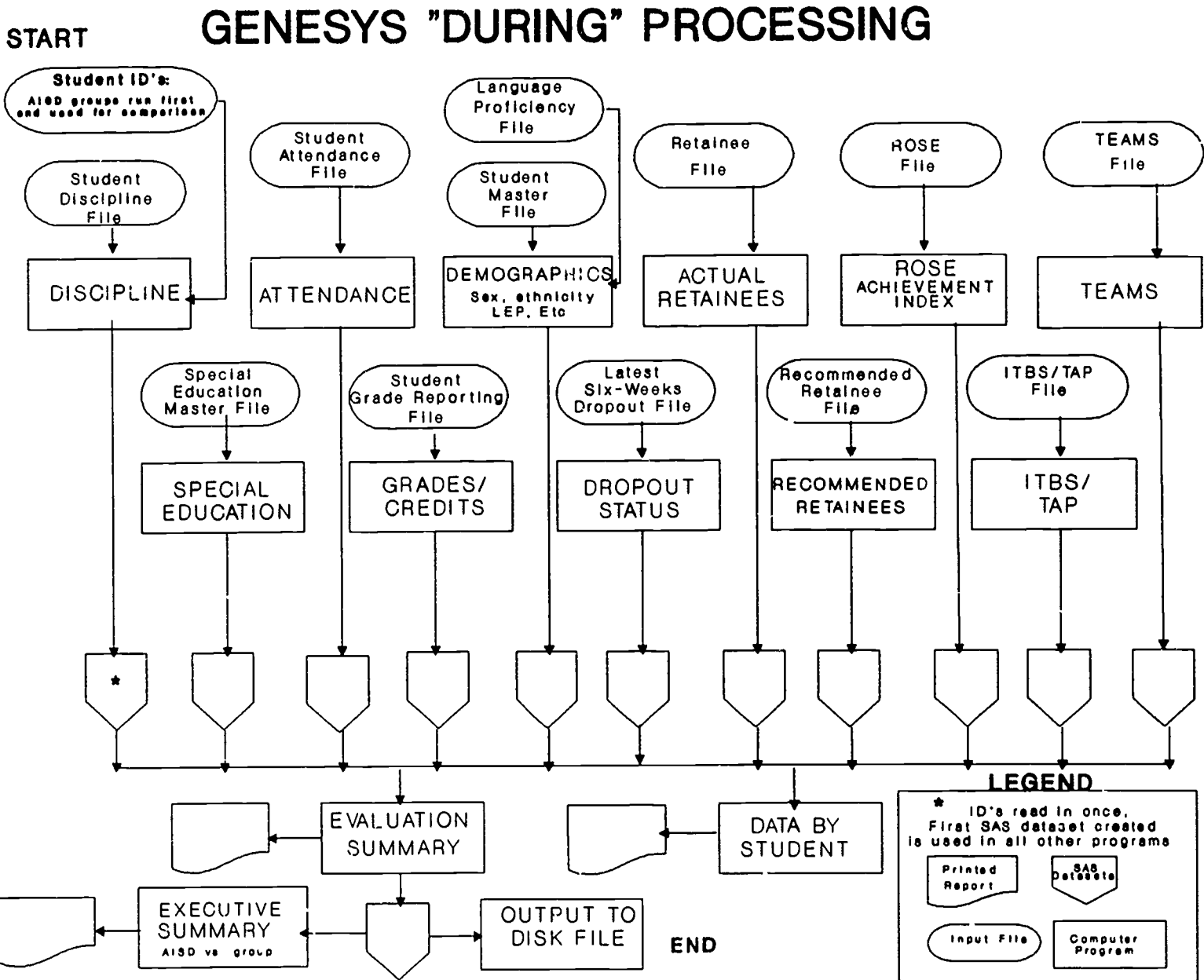
These definitions and inclusion rules may vary slightly from those used for "official" AISD counts. Rice and Robbins will be included in the middle school/junior high group next year. This was one of the "glitches" discovered late in the process. Rates for each variable were computed and are available in the technical report. However, executive summaries reflect rates without Rice and Robbins for middle school/junior high.





# GENESYS "BEFORE" PROCESSING





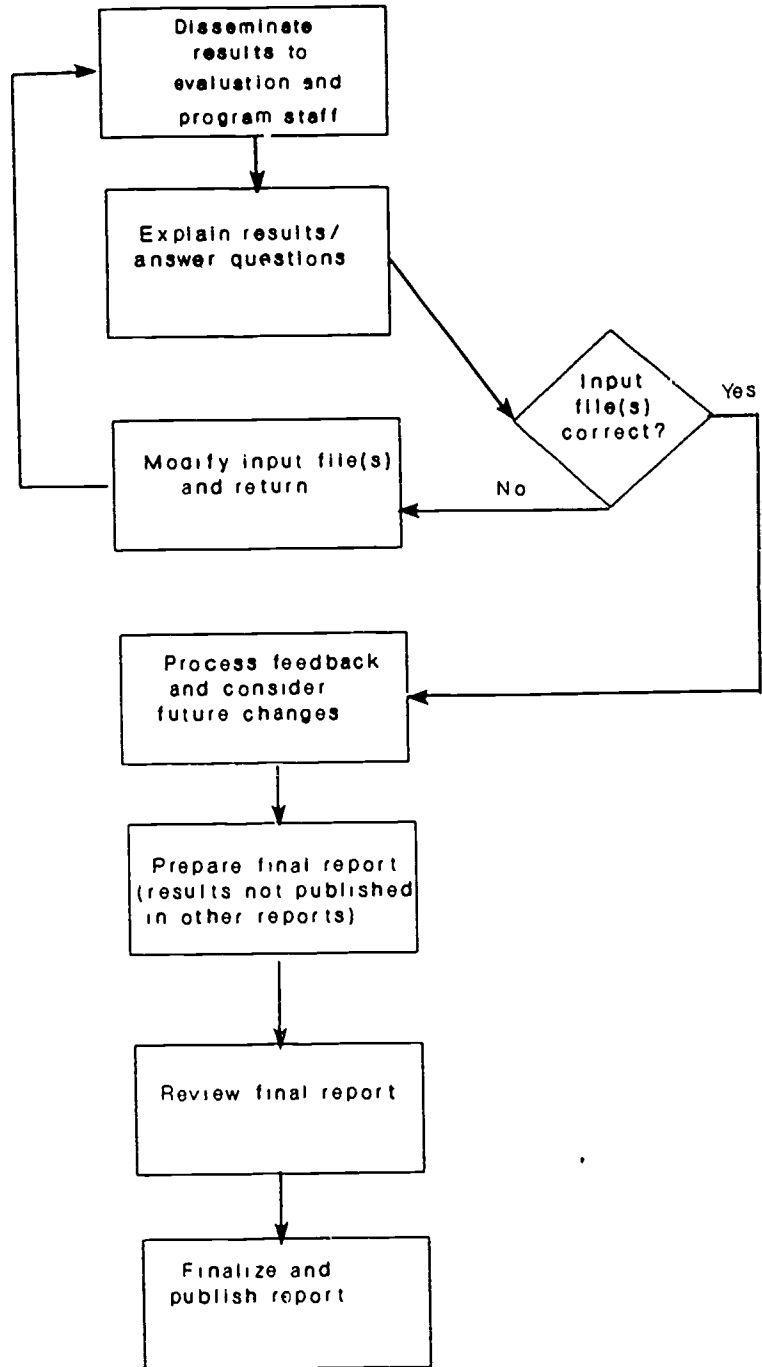
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Attachment 3  
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**LEGEND**

- \* ID's read in once. First SAS dataset created is used in all other programs
- Printed Report
- SAS Dataset
- Input File
- Computer Program

# GENESYS "AFTER" PROCESSING



## LIBERAL ARTS ACADEMY AT JOHNSTON

The Liberal Arts Academy at Johnston High School served high achievers through a curriculum which stressed college preparation. The program was initiated at the start of the 1988-89 school year with grade nine students only; successive grades will be added each fall.

- Achievement gains made by Liberal Arts Academy students (spring, 1988 ITBS to spring, 1989 TAP) far exceeded predicted levels for similar high achievers districtwide. They averaged a gain of 3.5 years in reading and 3.2 years in mathematics.
- Program students' attendance surpassed District rates for senior high school students.
- In 1988-89, 9.5% of the Academy students had dropped out of school, compared to 11.2% of the AISD high school students.

## GENESYS PROGRAM DESCRIPTION

PROGRAM NAME: Liberal Arts Academy (Johnston)  
 EVALUATION CONTACT: Linda Frazer  
 PROGRAM CONTACT: Clark Lyman

- Funding (Local, State or Federal): Local
- Budget allocation: \$357,022
- Number of campuses with program: 1 -- Johnston High School.  
 Representatives from all public middle/  
 junior highs - all attendance areas.
- Eligibility/students served:
  1. ITBS Language and Reading Total
  2. GPA - (junior high)
  3. Most recent grades
  4. Application essay
  5. Interview - student and parent - sign contract  
 - student, parent, school
  6. 2 or more teacher recommendations junior high  
 honors courses - artistic, creative  
 Staff take into account all the above to best  
 place student whether LAA, Science Academy,  
 Honors Courses
- Grade served: 9 (1st year of program) - eventually 9 - 12  
 (will add a grade a year)
- Source of file: Roster with all in program as of January
- Subject areas taught: 7 period academic day
  - 1 Foreign Language required
  - 1 LAA English
  - 1 LAA Social Studies
  - 1 Science
  - 1 Mathematics
  - \*Health, PE
  - \*Selected electives (must be approved)
  - Band, Drama
- Program focus/goals/methods: The Liberal Arts Academy at  
 Johnston High School provides gifted, creative, and talented  
 students an accelerated academic program leading to an  
 exceptionally strong preparation for college. It is expected  
 that students will graduate at the end of four years with one  
 year's college credit. Capable students and their LAA  
 families are interested in a general preparation in all  
 liberal arts areas and special enrichment in the areas of  
 foreign languages and the humanities. Additionally, the  
 Liberal Arts Academy provides study trips, resource speakers,  
 and numerous cultural opportunities to its student scholars  
 on an ongoing basis.

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EXECUTIVE SUMMARYSENIOR HIGH  
GRADES 9LIBERAL ARTS ACADEMY (JOHNSTON), 1988-89  
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## GROUP CHARACTERISTICS:

Number of students in this group:	74
Percent low income:	16.
Percent minority:	38
Percent female:	62
Percent limited English proficient (LEP):	0
Percent overage for their grade:	7
Percent special education students:	1
Percent gifted/talented students:	0

## Major Findings

**TAP ACHIEVEMENT:** The spring, 1989, Tests of Achievement and Proficiency (TAP) median percentile scores of program students were compared to the 1985 national norms.

Out of 2 comparisons, program students' scores were...

	Reading	Mathematics
Above the national norm in	1	1
At the national norm in	0	0
Below the national norm in	0	0

TAP scores from spring, 1989, were compared to predicted levels of achievement by means of the Report on School Effectiveness (ROSE) procedure.

Out of 2 comparisons, program students' scores...

	Reading	Mathematics
Exceeded predicted levels in	1	1
Achieved predicted levels in	0	0
Were below predicted levels in	0	0
Were too few for analysis in	0	0

**TEAMS ACHIEVEMENT:** Compared to the AISD averages in mathematics, reading, and writing, the percentages of program students mastering the TEAMS at grades 9 and 11 (first-time test takers) were:

	Reading/ Language Arts	Mathematics	Writing
Higher in	1	1	1
The same in	0	0	0
Lower in	0	0	0

**ATTENDANCE:** Compared with the attendance rates for senior high districtwide:

	The program rate was...	AISD	Program
Fall, 1988	Higher	93.3%	94.8%
Spring, 1989	Higher	90.2%	94.8%
Compared to...	1988-89 program attendance was...		
Program students in 1987-88	Fall:	Lower	
	Spring:	Higher	

89.16

DISCIPLINE: Compared with the percentages of students involved in discipline incidents at the senior high level districtwide:

	The program rate was...	AI SD	Program
Fall, 1988	Lower	3.3%	0.0%
Spring, 1989	Lower	4.2%	0.0%
Compared to...	1988-89 program discipline was...		
Program students in 1987-88	Fall: Lower		
	Spring: Lower		

GRADES: Compared with the GPA's for all AI SD senior high students:

	The program rate was...	AI SD	Program
Fall, 1988	Higher	82.3%	83.6%
Spring, 1989	Higher	82.6%	84.7%
Compared to...	1988-89 program GPA was...		
Program students in 1987-88	Fall: Lower		
	Spring: Higher		

RETAINNEES/DROPOUTS: Comparing the percentage of program students recommended in spring, 1989, for retention the following year with all AI SD senior high students:

The program rate was...	AI SD	Program
Lower	22.2%	6.8%

Compared to the percentage of senior high students retained districtwide in fall, 1989:

The program rate was...	AI SD	Program
Lower	12.3%	2.7%

Compared to the annual dropout rate for senior high students for 1988-89:

The program rate was...	AI SD	Program
Lower	11.2%	9.5%



# GENESYS

GENeric Evaluation SYStem

PROGRAM/GROUP: LIBERAL ARTS ACADEMY (JOHNSTON), 1988-89

AUSTIN INDEPENDENT SCHOOL DISTRICT  
DEPARTMENT OF MANAGEMENT INFORMATION  
OFFICE OF RESEARCH AND EVALUATION

## EVALUATION SUMMARY

PRINT DATE: 01/06/90

### DEMOGRAPHIC INDICATORS

Grade	PK	K	1	2	3	4	5	6	7	8	9	10	11	12	TOTAL
# Students:											73	74			
Sex		Ethnicity			Low Income		Overage		Special Education		Gifted/Talented				
Male	Female	Black	Hispanic	Other	Income	LEP	For Grade	Education							
#	28	45	9	19	45	12	0	5	1			0			
%	38	62	12	26	62	16	0	7	1			0			

### PROGRESS INDICATORS

Dropouts:		9.5% AS OF YEAR END		Retainees:		End of Year:		6.8%		Beginning of Year:		2.7%	
Attendance		Disciplines		Credits		#F's		#No Grades		GPA			
	Fall	Spring	Fall	Spring	Fall	Spring	Fall	Spring	Fall	Spring	Fall	Spring	
88-89	#	72	73	0	0	#	72	70	72	70	72	70	
	%	94.8	94.8	0.0	0.0	AVG	3.2	3.2	0.32	0.43	0.08	0.07	
87-88	#	63	65	2	1	#			64	62			
	%	96.9	94.7	2.7	1.4	AVG			0.09	0.15			
											83.6	84.7	
											89.1	88.9	

### ACHIEVEMENT INDICATORS

ITBS/TAP MEDIAN PERCENTILES, 1988-89												
Grade	1	2	3	4	5	6	7	8	9	10	11	12
Reading Comprehension									87			
Number of Students									65			
Mathematics Total									81			
Number of Students									65			
Composite									85			
Number of Students									63			

ROSE, SPRING 1988 TO SPRING 1989 MEAN GRADE EQUIVALENT											
Grade	2	3	4	5	6	7	8	9	10	11	12
READING COMPREHENSION											
Number of Students											
1988 Grade Equivalent											
1989 Grade Equivalent											
Gain											
Predicted Score											
Over/Under Actual											
Significance											
MATHEMATICS TOTAL											
Number of Students											
1988 Grade Equivalent											
1989 Grade Equivalent											
Gain											
Predicted Score											
Over/Under Actual											
Significance											

TEAMS PERCENT MASTERING						KEY	
Grade	3	5	7	9	11		
Mathematics							99
Number of Students							72
Reading/Language Arts							100
Number of Students						72	
Writing						96	
Number of Students						71	

- Number of Students is Too Small for Analysis
- Exceeded Predicted Score
- Achieved Predicted Score
- Below Predicted Score
- AVG Average

## KEALING MAGNET SCHOOL

The Kealing Magnet School serves mathematics, computer technology, and science high achievers. The program also stresses academic development in other basic subjects.

- ITBS achievement levels in spring, 1989 exceeded national norms; gains from spring, 1988 to spring, 1989 were generally equal to predicted levels for other high achievers districtwide.
- Program students were seldom involved in discipline incidents; 0.9% were disciplined in the fall and no one was in the spring (compared to AISD middle school/junior high rates of 4.4% and 5.6%, respectively).
- During the 1988-89 school year, 6.1% of the Kealing Magnet students dropped out of school, the same rate the District's middle school/junior high students had.

## GENESYS PROGRAM DESCRIPTION

PROGRAM NAME: Kealing Magnet School  
EVALUATION CONTACT: Nancy Baenen  
PROGRAM CONTACT: Wayne Schade

- Funding (Local, State, or Federal): Local
- Budget allocation: \$174,808
- Number of staff: 7 Kealing teachers assigned to magnet
- Number of campuses with program: Kealing Junior High
- Eligibility/students served: 228 students  
The academic qualifications include:
  1. High standards on ITBS = 80th or above on composite score;
  2. High grades;
  3. A high interest in science, math or computer technology;
  4. A high score on a hand-written essay to one of three questions related to contemporary science issues; and
  5. Teacher recommendations are also used to support the applicants' qualifications.
- Grade served: 7th and 8th
- Source of file: Computer file as of January based on course number
- Subject areas taught: Science, mathematics, and computers
- Program focus/goals/methods: The program provides students with educational experiences which stress strong academic development in basic subject areas. A focus is computers as productivity tools and the methods of scientific inquiry. Students are given opportunities to develop personal skills in studying, organizing, communicating, cooperating, and test taking.

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EXECUTIVE SUMMARYMIDDLE SCHOOL/JUNIOR HIGH  
GRADES 7-8KEALING MAGNET SCHOOL, 1988-89  
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## GROUP CHARACTERISTICS:

Number of students in this group:	228
Percent low income:	19
Percent minority:	38
Percent female:	47
Percent limited English proficient (LEP):	1
Percent overage for their grade:	9
Percent special education students:	1
Percent gifted/talented students:	100

## Major Findings

ITBS ACHIEVEMENT: The spring, 1989, Iowa Tests of Basic Skills (ITBS) median percentile scores of program students were compared to the 1985 national norms.

Out of 4 comparisons, program students' scores were...

	Reading	Mathematics
Above the national norm in	2	2
At the national norm in	0	0
Below the national norm in	0	0

ITBS scores from spring, 1989, were compared to predicted levels of achievement by means of the Report on School Effectiveness (ROSE) procedure.

Out of 4 comparisons, program students' scores...

	Reading	Mathematics
Exceeded predicted levels in	0	1
Achieved predicted levels in	2	1
Were below predicted levels in	0	0
Were too few for analysis in	0	0

TEAMS ACHIEVEMENT: Compared to the AISD averages in mathematics, reading, and writing, the percentages of program students mastering the TEAMS at grade 7 were:

	Reading	Mathematics	Writing
Higher in	x	x	x
The same in			
Lower in			

ATTENDANCE: Compared with the attendance rates for middle school/junior high districtwide:

	The program rate was...	AISD	Program
Fall, 1988	Higher	95.0%	96.9%
Spring, 1989	Higher	92.9%	95.5%
Compared to...	1988-89 program attendance was...		
Program students in 1987-88	Fall:	Lower	
	Spring:	Lower	

**DISCIPLINE:** Compared with the percentages of students involved in discipline incidents at the middle school/junior high level districtwide:

	The program rate was...	AI SD	Program
Fall, 1988	Lower	4.4%	0.9%
Spring, 1989	Lower	5.6%	0.0%
Compared to...	1988-89 program discipline was...		
Program students in 1987-88	Fall:	Lower	
	Spring:	The same	

**GRADES:** Compared with the GPA's for all AI SD middle school/junior high students:

	The program rate was...	AI SD	Program
Fall, 1988	Higher	82.9%	86.2%
Spring, 1989	Higher	82.1%	86.0%
Compared to...	1988-89 program GPA was...		
Program students in 1987-88	Fall:	Lower	
	Spring:	Lower	

**RETAINNEES/DROPOUTS:** Comparing the percentage of program students recommended in spring, 1989, for retention the following year with all AI SD middle school/junior high students:

The program rate was...	AI SD	Program
Lower	15.3%	3.5%

Compared to the percentage of middle school/junior high students retained districtwide in fall, 1989:

The program rate was...	AI SD	Program
Lower	4.0%	1.3%

Compared to the annual dropout rate for middle school/junior high students for 1988-89:

The program rate was...	AI SD	Program
Higher	6.1%	6.1%

# GENESYS

GENeric Evaluation SYStem

PROGRAM/GROUP: KEALING MAGNET SCHOOL. 1988-89

AUSTIN INDEPENDENT SCHOOL DISTRICT  
DEPARTMENT OF MANAGEMENT INFORMATION  
OFFICE OF RESEARCH AND EVALUATION

## EVALUATION SUMMARY

PRINT DATE: 01/06/90

### DEMOGRAPHIC INDICATORS

Grade	PK	K	1	2	3	4	5	6	7	8	9	10	11	12	TOTAL
# Students:															228
Sex		Ethnicity			Low Income		Average		Special Education		Gifted/Talented				
Male Female		Black Hispanic Other		Income LEP		For Grade		Education		Talented					
#	120	108	51	35	142	43	2	21	3	228					
%	53	47	22	15	62	19	1	9	1	100					

### PROGRESS INDICATORS

Dropouts: 6.1% AS OF YEAR END		Retainees:		End of Year: 3.5%		Beginning of Year: 1.3%						
Attendance		Disciplined		Credits		#F's		#No Grades		GPA		
	Fall	Spring	Fall	Spring	Fall	Spring	Fall	Spring	Fall	Spring	Fall	Spring
88-89 #	228	228	2	0	#	228	227				228	227
%	96.9	95.5	0.9	0.0	AVG	0.25	0.30				86.2	86.0
87-88 #	209	210	3	0	#	161	159				161	159
%	97.7	95.7	1.3	0.0	AVG	0.12	0.09				88.4	88.3

### ACHIEVEMENT INDICATORS

ITBS/TAP MEDIAN PERCENTILES, 1988-89												
Grade	1	2	3	4	5	6	7	8	9	10	11	12
Reading Comprehension							78	85				
Number of Students							91	129				
Mathematics Total							79	84				
Number of Students							90	131				
Composite							84	89				
Number of Students							89	127				

Grade	ROSE, SPRING 1988		TO SPRING 1989		MEAN GRADE EQUIVALENT						
	2	3	4	5	6	7	8	9	10	11	12
READING COMPREHENSION											
Number of Students						85	109				
1988 Grade Equivalent						8.4	9.7				
1989 Grade Equivalent						9.3	10.7				
Gain						0.9	1.0				
Predicted Score						9.2	10.5				
Over/Under Actual						0.2	0.1				
Significance						=	=				
MATHEMATICS TOTAL											
Number of Students						84	112				
1988 Grade Equivalent						8.4	9.7				
1989 Grade Equivalent						9.0	10.3				
Gain						0.6	0.7				
Predicted Score						8.9	10.2				
Over/Under Actual						0.1	0.1				
Significance						=	+				

TEAMS PERCENT MASTERING						KEY	
Grade	3	5	7	9	11		
Mathematics							
Number of Students						93	
Reading/Language Arts						100	
Number of Students						94	
Writing						90	
Number of Students						93	

• • Number of Students is Too Small for Analysis

• • Exceeded Predicted Score

• • Achieved Predicted Score

• • Below Predicted Score

AVG: Average

## TEACH AND REACH

Teach and Reach provides supplementary reading and mathematics instruction for low-achieving Black students at six AISD elementaries.

- Teach and Reach students generally showed predicted gains on the ITBS between spring, 1988 and spring, 1989 for both reading and mathematics (compared to similar students districtwide on the ROSE).
- Participants fall and spring rates of attendance were slightly higher than the District's overall rate.
- Compared to all AISD elementary school students, lower percentages of the program students were recommended for retention at the end of the 1988-89 school year and actually retained at the beginning of the 1989-90 school year. A greater percentage were involved in discipline incidents.

## GENESYS PROGRAM DESCRIPTION

PROGRAM NAME: Teach and Reach  
EVALUATION CONTACT: Wanda Washington  
PROGRAM CONTACT: Sandra Bell

- Funding (Local, State, or Federal): Local
- Budget Allocation: \$233,241
- Number of Staff: 1 Supervising Teacher  
6 Regular Teachers  
1 Full-time Secretary  
1 Half-time Parent Advisor
- Number of campuses with program: 6 schools -- Andrews,  
Blackshear, Harris, Oak Springs, Norman,  
and Winn
- Eligibility/students served: 289 unduplicated count of  
low achievers (below 50th percentile)
- Grades served: K-5
- Source of file: Black students in program, as of December,  
based on rosters from program staff.
- Subject areas taught: Reading and mathematics
- Program focus/goals/methods: Small group and individual  
supplemental help in pullout setting



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EXECUTIVE SUMMARYELEMENTARY  
GRADES K-5TEACH AND REACH, 1988-89  
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## GROUP CHARACTERISTICS:

Number of students in this group:	289
Percent low income:	76
Percent minority:	99
Percent female:	54
Percent limited English proficient (LEP):	0
Percent overage for their grade:	25
Percent special education students:	5
Percent gifted/talented students:	4

## Major Findings

ITBS ACHIEVEMENT: The spring, 1989, Iowa Tests of Basic Skills (ITBS) median percentile scores of program students were compared to the 1985 national norms.

Out of 10 comparisons, program students' scores were...

	Reading	Mathematics
Above the national norm in	0	1
At the national norm in	0	0
Below the national norm in	5	4

ITBS scores from spring, 1989, were compared to predicted levels of achievement by means of the Report on School Effectiveness (ROSE) procedure.

Out of 8 comparisons, program students' scores...

	Reading	Mathematics
Exceeded predicted levels in	0	1
Achieved predicted levels in	3	2
Were below predicted levels in	0	0
Were too few for analysis in	1	1

TEAMS ACHIEVEMENT: Compared to the AISD averages in mathematics, reading, and writing, the percentages of program students mastering the TEAMS at grades 3 and 5 were:

	Reading	Mathematics	Writing
Higher in	0	0	2
The Same in	0	0	0
Lower in	2	2	0

ATTENDANCE: Compared with the attendance rates for elementary students districtwide:

	The program rate was...	AISD	Program
Fall, 1988	Higher	96.0%	96.5%
Spring, 1989	Higher	95.0%	95.1%
Compared to...	1988-89 program attendance was...		
Program students in 1987-88	Fall:	Lower	
	Spring:	Lower	

DISCIPLINE: Compared with the percentages of students involved in discipline incidents at the elementary level districtwide:

	The program rate was...	AI SD	Program
Fall, 1988	Higher	0.2%	1.0%
Spring, 1989	Higher	0.5%	0.7%
Compared to...	1988-89 program discipline was...		
Program students in 1987-88	Fall: Higher		
	Spring: Lower		

RETAINERS: Comparing the percentage of program students recommended in spring, 1989, for retention the following year with all AI SD elementary students:

The program rate was...	AI SD	Program
Lower	2.1%	1.0%

Compared to the percentage of elementary students retained districtwide in fall, 1989:

The program rate was...	AI SD	Program
Lower	2.0%	1.0 %

# GENESYS

GENERIC Evaluation SYSTEM

PROGRAM/GROUP: TEACH AND REACH, 1988-89

AUSTIN INDEPENDENT SCHOOL DISTRICT  
DEPARTMENT OF MANAGEMENT INFORMATION  
OFFICE OF RESEARCH AND EVALUATION

## EVALUATION SUMMARY

PRINT DATE: 01/06/90

### DEMOGRAPHIC INDICATORS

Grade	PK	K	1	2	3	4	5	6	7	8	9	10	11	12	TOTAL
# Students:															289
Sex		Ethnicity			Low		Average		Special		Gifted/				
Male	Female	Black	Hispanic	Other	Income	LEP	For Grad	Education	Talented						
#	133	156	285	1	3	221	0	73	15	13					
%	46	54	99	0	1	0	25	5	4						

### PROGRESS INDICATORS

Dropouts:	N/A	Retainees:	End of Year: 1.0%	Beginning of Year: 1.0%					
Attendance	Disciplined	Credits	#'s	#No Grades	GPA				
Fall Spring	Fall Spring	Fall Spring	Fall Spring	Fall Spring	Fall Spring				
88-89 #	289	281	3	2	#				
%	96.5	95.1	1.0	0.7	AVG				
87-88 #	206	209	1	4	#				
%	97.1	95.8	0.3	1.4	AVG				

### ACHIEVEMENT INDICATORS

ITBS/TAP MEDIAN PERCENTILES, 1988-89												
Grade	1	2	3	4	5	6	7	8	9	10	11	12
Reading Comprehension	48	28	32	24	22							
Number of Students	53	37	81	27	57							
Mathematics Total	36	55	38	25	22							
Number of Students	52	37	82	26	57							
Composite	49	44	39	23	24							
Number of Students	52	37	80	26	57							
ROSE, SPRING 1988 TO SPRING 1989 MEAN GRADE EQUIVALENT												
Grade	2	3	4	5	6	7	8	9	10	11	12	
READING COMPREHENSION												
Number of Students	31	64	21	46								
1988 Grade Equivalent	1.5	2.3	3.3	4.0								
1989 Grade Equivalent	2.3	3.2	3.7	4.4								
Gain	0.8	0.9	0.4	0.5								
Predicted Score	2.5	3.2	4.0	4.6								
Over/Under Actual	-0.2	0.0	-0.3	-0.2								
Significance	=	=	=	=								
MATHEMATICS TOTAL												
Number of Students	30	61	21	46								
1988 Grade Equivalent	1.9	2.7	3.6	4.2								
1989 Grade Equivalent	3.1	3.4	4.1	4.9								
Gain	1.2	0.8	0.5	0.7								
Predicted Score	2.8	3.6	4.3	4.9								
Over/Under Actual	0.2	-0.1	-0.2	0.0								
Significance	+	=	=	=								

### TEAMS PERCENT MASTERING

Grade	3	5	7	9	11
Mathematics	88	77			
Number of Students	82	39			
Reading/Language Arts	83	75			
Number of Students	81	40			
Writing	81	85			
Number of Students	81	39			

- • Number of Students is Too Small for Analysis
  - + • Exceeded Predicted Score
  - • Achieved Predicted Score
  - • Below Predicted Score
- AVG= Average

END

U.S. Dept. of Education

Office of Education  
Research and  
Improvement (OERI)

ERIC

Date Filmed

March 21, 1991