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ABSTRACT

Magnet school programs were established in three Atlanta, Georgia, public high schools and were designed to provide specialized curriculum that was unique within the school system either in terms of the content area taught or the instructional strategies used. The programs were the Grady School of Communication, the North Fulton Center for International Studies, and the Roosevelt Center for Information Processing and Decision Making. This report evaluates the programs during the stage of initial implementation for adherence to prescribed Federal guidelines, and includes information on the profile of enrolled students, the extent of unique course experience provided to the students, the programs' impact on students' attitudes toward school and their academic achievement, and the attitudes and understanding of staff members and support that they received. Results show that: (1) the magnet programs achieved many of their objectives; (2) both magnet teachers and students indicated that students in the program gained new experience; and (3) students responded favorably to the initial stage of the programs. It was recommended that consideration be given to more explicit program objectives both locally and systemwide, and that adequate housing for the program, sufficient supplies and equipment, sufficient planning time and stable funding be achieved prior to its formal operation. (AOS)

EMERGENCY SCHOOL AID ACT (ESAA)
MAGNET PROGRAM EVALUATION
(FY '81 and FY '82)

Research, Evaluation, and Data Processing
Atlanta Public Schools
Atlanta, Georgia 30335

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(FY '81 and FY '82)

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EMERGENCY SCHOOL AID ACT (ESAA)
MAGNET PROGRAM EVALUATION
(FY '81 and FY '82)

INTRODUCTION

At the beginning of the 1980-81 school year, the Atlanta Public Schools (APS) received an Emergency School Aid Act (ESAA) grant award of $353,176 to establish magnet programs at three high schools: Grady, North Fulton, and Roosevelt. A magnet program, as defined by the ESAA guidelines, is a specialized curriculum which is unique within the school system in terms of either the content area taught or the instructional strategies used. The magnet programs established at the three schools included the following: The Grady School of Communication, the North Fulton Center for International Studies, and the Roosevelt Center for Information Processing and Decision Making.

The ESAA grant period was to extend initially from October 1, 1980, through September 30, 1981. However, due to several problems which were incurred in starting the program, the grant period was extended through December 31, 1981. The additional time was designed to give the program an adequate opportunity to achieve its program goals.

As an intended one-year grant, the primary emphasis was to be placed upon planning and start-up activities (e.g., staff selection, curriculum development, etc.), with the actual operation of the program to begin during the third quarter of the 1980-81 school year. Due to the time extension, it was possible to offer additional program activities which were implemented in accordance with the initial objectives. An outline of activities during the ESAA grant period appears in Table 1.

TABLE 1

PROGRAM ACTIVITIES FOR ESAA GRANT PERIOD

Time Period	Descriptor	Primary Activity
First and second quarters 1980-81	Program planning	Staff selection, curriclum development, purchase of materials and equipment.
Third quarter 1980-81	Program operation	Student enrollment in initial magnet courses.
Summer 1981	Program operation	Staff development workshop sponsored by the Grady magnet program.
First quarter 1981-82	Program operation	Student enrollment in subsequent magnet courses due to grant extension.

An instructional coordinator with expertise in the magnet specialty area was assigned to each of the three ESAA sites. The instructional coordinator worked in conjunction with the principal in administering the daily operation of the program at the local school. In addition, each ESAA magnet site was assigned a public relations/recruiter who assisted in disseminating information about the local program. Each site also received a budget for three part-time instructors. Part-time instructors assisted in teaching magnet courses, because the regular staff assigned to the three schools was not usually sufficient to meet the needs of the project. A project coordinator was also assigned to the program to facilitate the development and operation of the magnet program across the three sites. All project personnel functioned within the general administrative regulations of the school system.

Students who participated in the program were enrolled in magnet courses in conjunction with their regular program of study. In fact, one stipulation of the ESAA guidelines was that participation in a magnet program should not prevent a student from meeting the normal requirements for graduation.

During the initial quarter of the program's operation, participation was limited to students who were already enrolled at the local school. By the first quarter of the 1981-82 school year, enrollment was opened systemwide to students interested in one of the three specialty areas. Initially, magnet courses were offered to students in grades 9 through 12 at Grady and North Fulton, and to students in grades 11 and 12 at Roosevelt. During the first quarter of the 1981-82 school year, however, Roosevelt expanded its magnet program to include students in grades 9 through 12 as well. The admissions requirements for each magnet program were set by the local school.

RESEARCH DESIGN

The evaluation of the three ESAA magnet programs was designed to accomplish the following objectives:

1. To determine the extent to which the program adhered to the prescribed guidelines.

2. To provide a profile of the students enrolled in the program during the grant period.

3. To determine the extent to which the program provided students with what they perceived to be unique course experience.

4. To examine possible by-products of the program in terms of its ability to effect changes in students' behaviors, in such areas as test performance, school achievement, and attitude toward school.

In order to meet the above objectives, various data were collected: (1) questionnaires were administered to the principals, magnet staff, students, advisory council members, and workshop participants in order to assess the process used to implement the program; (2) an analysis was made of magnet students' grades, their overall grade point average (GPA), and their attendance; (3) magnet students were requested to complete course evaluations at the end of the third quarter (1980-81) and the first quarter (1981-82); (4)

comparisons were made between magnet students and a hypothetical control group with respect to their test performance and their attitude towards school.

Research activities for the fourth study objective were not conducted during the ESAA grant period. They were added to the evaluation to compensate for the fact that the ESAA grant period extended across two different school terms. In this way, some comparison could be made between student behaviors at the beginning and end of the same academic year. This modification in the design also provided an assessment period which was more typical to other system evaluations.

FINDINGS

Program Implementation

The evaluation sought to answer the following questions in determining whether the ESAA magnet programs were implemented in accordance with federal guidelines and those program goals which served as the basis for funding:

1. Were magnet course experiences unique?
2. Did key persons (e.g., principals, project staff, and advisory council members) have a clear understanding of the program's goals and objectives, and did they receive adequate assistance in carrying out their responsibilities?
3. Were the resources provided used?
4. What aspects of the program needed improvement?

Principal Responses:

The principals' collective responses to the questionnaire administered at the end of the initial quarter of operation (i.e., third quarter 1980-81) are summarized below:

- All three principals believed that they had received a sufficient orientation to the magnet program's objectives at their school, and indicated that they had been either extensively or moderately involved in the implementation process at their school.
- They believed that the magnet program would have a positive impact upon the total school curriculum, and would serve to improve public perception of the school.
- They considered the cooperation between the school and the business/university/community sectors, as well as inherent features of the particular specialty area to be the program's greatest strengths.
- They indicated that insufficient planning time, as well as difficulties inherent in developing one of the magnet specialty areas were some of the program's weaknesses.

- Their suggestions for improving the program's implementation included the following: (1) the roles and responsibilities of those involved should be clearly defined; (2) sufficient personnel should be provided to meet the needs of the program; (3) the system's efficiency in responding to program needs should be improved.

Teacher Responses:

Questionnaires regarding the program's implementation were received from six teachers who worked with magnet programs during the third quarter (1980-81). Ten magnet courses were offered during the initial quarter of operation. They are listed in Table 2.

TABLE 2

INITIAL MAGNET COURSES THIRD QUARTER (1980-81)

School	Courses Offered
Grady	Creative Writing Draw/Design Journalism Communications
North Fulton	Global Issues Intercultural and International Communications Introduction to Area Studies
Roosevelt	Electronic Computer Orientation to Information Management Word Processing

Questionnaires were received from three teachers at Grady, from two teachers at North Fulton, and from one teacher at Roosevelt. Their reactions regarding the program's implementation during the initial quarter of operation included the following comments:

- All teachers responding believed that they had received an adequate orientation to the program's objectives and were given sufficient freedom to innovate.
- All indicated that they used outside consultants as resources in either planning or teaching the magnet courses, and all except one teacher believed that they were able to accomplish course goals.
- Half of the teachers believed that the teaching methods which they used in the magnet classes differed from those which they used in other courses.

- Half the teachers indicated that the instructional materials needed during the initial quarter were not available when responding to one item. However, all teachers indicated that they had problems securing needed supplies and equipment when comments for all portions of the questionnaire were tabulated.

- Opportunities for innovation, the broadening of students' knowledge, the dedication of the magnet staff, and working with outside experts were listed as major strengths of the program.

- The teachers who responded considered the major weakness of the ESAA magnet programs to be insufficient time for planning, and difficulties in acquiring needed supplies and equipment.

Student Responses:

Questionnaires were administered to a random selection of students at each ESAA magnet site based upon their homeroom assignment. In each instance, two homerooms were randomly selected for each grade level served by the program. All students in these homerooms were asked to complete a questionnaire at the beginning and end of the third quarter (1980-81). The questions for both administrations were identical. The objective of the questionnaire was to determine students' general awareness of the magnet program and their perception of it. Results are reported only for those homerooms in which both pretest and posttest data were available. (See Table 3.)

TABLE 3

PERCENT OF STUDENTS AWARE OF MAGNET PROGRAM AT ESAA SITES DURING INITIAL QUARTER

North Fulton:	No. of Students		Program Awareness		Specialty Awareness		Information Received		Course Identification		No Magnet Interest		Course Perceptions	
Grade	Pre	Post	Pre	Post	Pre	Post	Pre	Post	Pre	Post	Pre	Post	Pre	Post
9	49	38	86	89	80	87	77	89	69	75	26	11	63	58
10	45	35	91	88	87	83	87	83	91	77	22	23	69	51
11	37	37	92	94	68	84	89	92	61	69	35	35	65	54
Total School	131	110	89	91	79	84	84	89	74	74	27	29	66	55
Roosevelt:														
11	26	20	85	95	62	75	81	95	67	80	4	10	54	95
Total Project	157	130	88	92	76	83	83	90	73	75	24	26	64	61

Note: The Grady magnet program was not included in the analysis because posttest data were not available for comparison.

The data reported in Table 3 can be summarized as follows:

- The project total indicates that of the students responding, most of those at both North Fulton and Roosevelt (i.e., 88 percent) were aware of the magnet program's implementation at their school, and 83 percent reported that they had received information about the program at the beginning of the initial quarter.

- As expected, there was an increase in students' general awareness of the magnet program at the end of the first quarter of operation. There was also an increase in their ability to recognize the magnet specialty area at their school, and in the percentage of students who had received information about the program.

- As reflected by the pretest data for the total project, 24 percent of the students were initially unable to recognize the magnet specialty at their schools and 27 percent were initially unable to identify sample magnet courses at their school from those offered at the other ESAA sites. Thirty percent of the students at North Fulton selected communications as either the specialty area or a sample course. This confusion, however, is understandable, since communication is an implicit characteristic of international studies. There was no particular pattern to the errors made by Roosevelt students who fell in this category.

- At the end of the initial quarter, there was an increase in the percent of students who indicated that they were aware of the program, but were not interested in the magnet specialty at their school when pretest and posttest responses were compared for the programs reported and for the total project. However, in contrast to the project trend, ninth graders at North Fulton showed a noticeable decrease in this category, which seemed to indicate increased interest in the international studies magnet program among students in this group.

- When students were asked whether the magnet courses sounded more interesting than their regular courses, there was a decline in the percent of students at North Fulton who perceived the magnet courses as being more interesting at the end of the initial quarter. However, there was an increase in the percent of students at Roosevelt who perceived the magnet courses as being more interesting.

- In general, the eleventh graders at Roosevelt exhibited the greatest increase in favorable responses to the local magnet program as reflected by students' perceptions of the ESAA magnet courses. The percent of eleventh graders who perceived the magnet courses at Roosevelt as being more interesting increased by 41 percentage points at the end of the initial quarter.

Magnet Advisory Council Responses:

The evaluation of the magnet advisory councils was designed to assess the extent to which the three advisory councils adhered to the guidelines specified in the proposal. Two variables were used as the basis for determining whether this component was successfully

implemented. One focused upon whether the members of the advisory councils reflected a cross section of persons from the community, business and university sectors. The other focused upon the level of the advisory councils' involvement in determining the curriculum thrust at each of the three ESAA sites.

A questionnaire was administered to advisory council members of each ESAA magnet school at the end of the spring 1981 quarter. Questionnaires were administered at this time because this quarter was the first quarter in which magnet courses were offered under the ESAA grant.

Responses were obtained from 45 advisory council members: 12 from Grady, 23 from North Fulton, and 10 from Roosevelt. The findings are summarized below; however, it is important to remember that the findings reflect the responses of the advisory council members who responded to the questionnaire, rather than the responses of all those who were participants.

1. Data for the total project indicate that the advisory councils were initially comprised of a cross section of persons from the business, community, and university sectors in accordance with the guidelines. Most advisory council members (31 percent) were from the business sector. A rank order of the affiliations of those advisory council members who completed the questionnaire follows:

	Percent
- Member of business sector	31
- APS employees	20
- Member of college/university staff	13
- Other	11
- Member of professional institute or agency	7
- Parent of non-magnet student	7
- Magnet students	7
- Parent of magnet student	4
Total	100

2. A majority of the advisory council members (87 percent) indicated that they believed the council at their respective school represented a cross section of interest groups. A majority (71 percent) also indicated that they believed that the interest groups represented on the councils were making others aware of their views.

3. When questioned regarding their awareness of program activities, all advisory council members who responded believed that they had received a sufficient orientation to the program objectives at their respective magnet school. A majority (91 percent) also believed they had been sufficiently informed of the progress made in implementing the program during the initial quarter.

4. Most advisory council members (60 percent) described themselves as being moderately involved in the implementation of the magnet program at their respective sites; 22 percent considered themselves to be extensively involved in the program, while 17 percent indicated that they had little or no involvement in the program's implementation.

5. Most advisory council members (78 percent) indicated that they were pleased with their level of involvement in the program.

Although the advisory council members generally gave positive responses regarding their involvement with the ESAA Magnet Program during its first quarter of operation, there were several areas in which council members believed improvements could be made. Their comments are summarized by school.

Grady:

Responses obtained from the advisory council at Grady at the end of the initial quarter indicated that there should be greater student representation, in addition to the existing interest groups. The advisory council and the pool of media talent in the Atlanta community were considered to be some of the strengths of the program, while the late start-up date, the lack of sufficient time to recruit students, and the facilities available were identified as some of the initial weaknesses of the program. Recommendations for improvement included dividing the overall council into small task-oriented committees, increasing the councils' interactions with students in the program, engaging in more long-range planning with respect to specific goals and objectives, and intensifying student recruitment, particularly during the summer.

North Fulton:

Responses obtained from the advisory council at North Fulton indicated that groups such as the Southern Center for International Studies, as well as persons from the international business community should be represented on the advisory council. An interest in obtaining more citywide representation was also expressed. Positive school factors, such as the school's reputation for academic excellence, and the multicultural emphasis of the local magnet component were considered to be strengths of the program, while the lack of secure funding and the race to meet deadlines were identified as initial weaknesses in the program. Recommendations for improvement included establishing greater clarity of the role and responsibilities of advisory council members, increasing the group's awareness of members' expertise, and establishing greater communication with key groups involved in the program (ie., students, parents, staff, and others involved in international studies).

Roosevelt:

Responses obtained from the advisory council at Roosevelt emphasized the benefit of having members on the committee who were affiliated with major businesses having data processing installations. The interest and enthusiasm of the instructional coordinator, the involvement of the business sector, and the opportunities opened to students entering the fields of word and data processing were identified as some of the strengths of the program. The physical environment, the facilities and equipment, and the lack of student internships in the business sector were considered to be some of the initial weaknesses of the program. Recommendations for improvement included developing long-range objectives and effective evaluation measures, expanding the involvement of top-level industry representatives, securing more funding, and increasing the administrations involvement in the program.

Staff Development Activities:

Staff development activities were held at each ESAA magnet site, although the nature and number of workshops varied for each location. Yet, the underlying goal of each staff development workshop was to enhance participants' understanding of the magnet program.

Preassessment and postassessment questionnaires were administered at the beginning and the conclusion of two magnet workshops. The preassessment questionnaire was designed to measure participants' initial knowledge of the program. The postassessment questionnaire was designed to determine any changes in participants' understanding of the program by the end of the workshop. In both instances, participants were asked to rate their understanding of various magnet program components using a scale from 0 to 2. Two indicated thorough understanding of the topic, one indicated partial understanding, and zero indicated no understanding.

The findings reported are based upon data obtained from a workshop held at Grady and one held at Roosevelt.

Grady:

The staff development workshop at Grady was a 50-hour increment course offered to teachers during the summer of 1981. The workshop was entitled, Modern Media — Electronic Print and was taught by two consultants from the Georgia Institute of Technology. The workshop extended over a 10-day period and was designed to enhance the instructional skills of high school teachers who taught Mass Media as a part of the regular curriculum. An alternate objective of the workshop was to provide in-service training for prospective staff selected for the Grady School of Communication.

At Grady, responses were obtained from 16 teachers during the preassessment (i.e., seven magnet and nine non-magnet teachers), and from 17 teachers during the postassessment (i. e., seven magnet and ten non-magnet). To maintain anonymity, participants were not asked to identify themselves; thus, comparisons are based upon two unmatched groups of teachers. Preassessment scores ranged from 0 to 28, with an average score of 10, while postassessment scores ranged from 6 to 24 with an average score of 18. The highest score possible was 28, indicating thorough understanding of all topics. The lowest score possible was 0, indicating no understanding of either the magnet program or workshop objectives.

In order to determine whether there was a significant difference between teachers' preassessment and postassessment scores, the Mann-Whitney U test was used. This nonparametric procedure was selected because the scores reflected an ordinal ranking of participants' understanding of key topics addressed during the workshop. The value of U was 41 (R_1 = 177; R_2 = 383), which was significant at the .001 level. Thus, the findings substantiate that the Grady workshop was successful in improving teachers' understanding of various aspects of the magnet program.

A comparison of the preassessment and postassessment means for individual items indicated that the greatest improvement in participants' understanding occurred with respect to the following areas:

1. The resources provided to the program by outside sources.

2. The potential impact of the magnet program on student enrollment.

3. The role which participants could play in helping the program succeed.

4. The difference between the magnet curriculum and regular course offerings.

Teachers who participated in the staff development workshop were generally pleased with the experiences which were provided as reflected by the results of the Mann-Whitney U test. The preparation, expertise, and enthusiasm of the instructors, the variety and effectiveness of the material used, and the workshop's success in providing a new perspective from which to study the function of media were all listed as strengths of the workshop. Primary recommendations for improvement included expanding the length of the workshop, and providing more details regarding the magnet school concept.

Despite the success of the Grady workshop, some questions remained unanswered at the conclusion of the session. The most frequently unanswered question related to the procedures used to select both students and staff involved in the program. Other questions which the workshop failed to answer sufficiently included the following:

1. How will the magnet program ensure that students are not poorly prepared in other areas?

2. What is the program's philosophical position regarding the involvement of students who demonstrate strengths in more than one discipline?

3. What magnet courses would be offered the upcoming fall?

4. Why had the instructional staff for the upcoming school year not been selected prior to the workshop?

5. Why was film media omitted in the survey of print and electronic media?

Roosevelt:

The staff development workshop which was evaluated at Roosevelt was held at the end of the ESAA grant period (i.e., December 1981). The Roosevelt magnet program sponsored a one-day workshop for APS business education teachers. The preassessment and postassessment surveys used to evaluate the Grady teacher workshop were used to evaluate Roosevelt's staff development workshop as well.

A total of 35 preassessment and 37 postassessment unmatched surveys were obtained from the participants. None were involved in the magnet program at the time of the workshop. Scores on the preassessment survey ranged from 2 to 28, with an average score of 16. Scores on the postassessment ranged from 14 to 28, with an average score of 23. As mentioned previously, scores on the survey reflected participants' understanding of various aspects of the magnet program.

The Mann-Whitney U test was again used to determine whether the workshop was successful in improving teachers' understanding of the APS magnet program. The value of U was 258.5 (R_1 = 888.5; R_2 = 1739.5), which yielded a standard score (i.e., z score) of -4.4. The results were significant beyond the .001 level. Thus, the findings support the assumption that Roosevelt's staff development activities increased teacher's understanding of the magnet program.

In addition to the statistical analysis, a comparison was also made of changes in the preassessment and postassessment mean for each item. The in-service workshop was most successful in improving teacher's understanding of the following topics:

1. The selection criteria used to identify students for Roosevelt's magnet program.
2. The role which participants could play in helping the magnet program succeed.
3. The teaching/learning strategies used in magnet courses.
4. The interface between Roosevelt's magnet program and the general school curriculum.

In general, the business education teachers who participated in the one-day workshop at Roosevelt indicated that the information provided about both the local magnet program and the field of word processing, the guest speaker, and the well-organized manner in which the workshop was conducted were all assets. However, they indicated that future workshops might be improved if there were more audience participation and more career planning courses for students in grades 8 through 10, to name a few suggestions. The participants also indicated that it might be helpful if non-magnet teachers received information regarding techniques which could be used in their courses to facilitate the magnet program.

Profile of ESAA Magnet Students

Tables 4, 5, 6, and 7 provide a profile of the students who participated in the ESAA magnet programs during the grant period. Table 4 shows the expansion of the program during the ESAA grant period and extending through the end of the 1981-82 school year. Table 5 presents the grade distribution for students enrolled in magnet courses. Table 6 gives the cumulative GPA for magnet students and reflects their overall academic achievement at the end of the third quarter (1980-81) and the end of the first quarter (1981-82). Table 7 presents a comparison between magnet students' attendance during the initial quarter of program operation and their attendance during the same portion of the previous school year.

TABLE 4

GROWTH OF MAGNET PROGRAM AT ESAA SCHOOL SITES

School	Third Quarter (1980-81)		First Quarter (1981-82)		Third Quarter (1981-82)	
	Students	Courses	Students	Courses	Students	Courses
Grady	63	4	18	2	36	7
North Fulton	55	3	151	7	135	21
Roosevelt	57	3	106	4	72	17
Project	175	10	275	13	243	45

As noted in Table 4, there was an increase in magnet enrollment at North Fulton and Roosevelt when enrollment for the third quarter (1980-81) is compared to that of the first quarter (1981-82). Roosevelt's program increased by 46 percent, while North Fulton's increased by 63 percent. In contrast, there was a decline in magnet enrollment at Grady during this period.

When comparisons are made between magnet enrollment at the beginning and end of the 1981-82 school year, the magnet program at Grady increased, while those at North Fulton and Roosevelt declined. The more noticeable decline in magnet course enrollment at Roosevelt was due to scheduling problems. Despite fluctuations in enrollment, there was a steady increase in the number of magnet courses offered at all three schools when comparisons are made between the beginning and the end of the last school year. Fluctuations in Grady's enrollment data for the quarters reported probably reflect the change in instructional coordinators which occurred during the first quarter (1981-82).

TABLE 5

GRADE DISTRIBUTION FOR MAGNET COURSES
BY PERCENT FOR ESAA GRANT PERIOD

School	Third Quarter (1980-81)						First Quarter (1981-82)					
	*N	A	B	C	D	F	*N	A	B	C	D	F
Grady	63	41	28	21	8	1	36	39	25	25	5	5
North Fulton	55	18	42	25	14	0	150	22	47	25	5	0
Roosevelt	57	32	44	18	5	2	106	11	22	28	28	10
Total Project	175	31	38	21	9	1	292	20	35	26	13	4

*N= Number of students

Note: Magnet students at Grady were enrolled in a double-block course during the first quarter (1981-82). Thus, the total of 36 is based upon the fact that each of the 18 students received grades for two courses. In addition, one magnet student at North Fulton did not receive a grade and was omitted from the sample.

The data reported in Table 5 provide some insight regarding the extent to which students achieved magnet course objectives. It also provides a profile of the student's achievement. A majority of the students enrolled in magnet courses received grades of B or above in all but one instance. There was a noticeable decline in the percentage of Roosevelt students who fell in the two upper categories at the end of the first quarter (1981-82). Factors which may have produced the decline in course performance should probably be explored.

Table 6 provides a profile of ESAA magnet students based upon their cumulative GPA during the grant period. The results are reported only for students having data for both quarters.

TABLE 6

DISTRIBUTION OF GRADE POINT AVERAGES FOR MAGNET STUDENTS
DURING ESAA GRANT PERIOD
BY PERCENT

School	Number of Students		3.00 and Above		2.50 - 2.99		2.00 - 2.49		Below 2.0	
	I	II	I	II	I	II	I	II	I	II
Grady	63	16	38	19	25	12	22	50	14	19
North Fulton	55	149	36	30	36	34	18	24	9	13
Roosevelt	57	104	30	27	38	34	23	16	9	23
Total Project	175	269	35	28	33	32	21	23	11	17

Note: I = Third quarter 1980-81.
II = First quarter 1981-82.

As revealed by Table 6, all three magnet programs had some students in all four GPA categories both quarters. In general, a majority of the students had GPA's in the upper two ranges (i.e., 2.5 or above). However, at Grady, the percentage of students with GPA's of 2.5 or above declined 32 percentages points between the third quarter (1980-81) and the first quarter (1981-82). The percentage of magnet students at North Fulton with GPA's of 2.5 and above declined eight percentage points during this period, while that at Roosevelt declined seven percentage points. All three ESAA magnet programs exhibited an increase in the percentage of students with GPA's below 2.0. Roosevelt, however, had the greatest increase in this category.

Interestingly, even though the three schools exhibited differences in the distribution of GPA's among magnet students, the average achievement for students in each program was similar based upon results for the initial quarter. The average GPA was 2.74 for Grady, 2.78 for North Fulton, 2.72 for Roosevelt, with a project average of 2.75.

Table 7 presents a comparison between magnet students' attendance during the initial quarter (Spring 1981) and their attendance for the same period the previous year (Spring 1980). In addition to describing various characteristics of the initial magnet students, the attendance information was designed to examine whether the magnet program had an influence upon other student behaviors. As indicated by Table 7, there was a decline in the average attendance of magnet students at all three ESAA sites, and for the total project. Roosevelt exhibited the greatest decline; however, it also had the greatest number of seniors in its program (68 percent). Given the numerous activities surrounding graduation, the attendance data might have provided better insight regarding potential by-products of the magnet program had the data for all seniors been eliminated from the study. Thus, further analysis would be needed to determine the program's potential influence in this area.

TABLE 7

A COMPARISON OF ATTENDANCE FOR ESAA MAGNET PROGRAMS DURING THE INITIAL QUARTER

School	Attendance Third Quarter 1980	1981
Grady	92.5	91.8
North Fulton	96.0	94.9
Roosevelt	92.5	86.1
Total Project	93.6	90.9

Student Perceptions of Magnet Courses

Tables 8 through 12 reflect students' responses to magnet course evaluations completed at the end of both quarters occurring during the ESAA grant period. In each instance, a majority of the students enrolled in these courses gave favorable responses when the data are combined for all three schools. However, there was a decline in the percentage of positive responses to each question, when comparisons were made between spring quarter (1980-81) and the fall quarter (1981-82).

TABLE 8

MAGNET COURSE EVALUATION BY PERCENT OF STUDENTS
SPRING 1981 TO FALL 1981

Question: Did this course fulfill your expectations?

School	Spring 1981 N	Yes	No	DK	NR	Fall 1981 N	Yes	No	DK	NR
Grady	57	75	24	--	--	17	24	35	41	--
North Fulton	41	63	32	2	2	92	61	10	27	2
Roosevelt	23	83	13	--	4	35	77	--	20	3
Total	121	73	25	1	2	144	60	10	27	2

Note: N = Number of Students
DK = Do Not Know
NR = No Response

TABLE 9

MAGNET COURSE EVALUATION BY PERCENT OF STUDENTS
SPRING 1981 TO FALL 1981

Question: How did the interest level of this course compare with your course?

School	Spring 1981 Interest Level N	More	Same	Less	NR	Fall 1981 Interest Level N	More	Same	Less	NR
Grady	57	74	23	--	4	17	41	59	--	--
North Fulton	41	54	27	20	--	92	43	42	11	3
Roosevelt	23	70	26	4	--	35	91	6	3	--
Total	121	66	25	7	2	144	55	35	8	2

When the questions are analyzed as a group, students gave the most favorable responses when asked whether the magnet course provided new class experiences. (See Table 10.) Their responses as a total group reflected the least favorable assessment when they were asked, at the end of the fall quarter (1981-82), to compare the interest level of the magnet courses with other courses they had taken, and to indicate their interest in taking additional magnet courses. (See Tables 9 and 11.) For all three programs, there was also an increase in the percentage of students who were unsure whether the magnet courses fulfilled their expectations. (See Table 8.)

TABLE 10

MAGNET COURSE EVALUATION BY PERCENT OF STUDENTS
SPRING 1981 TO FALL 1981

Question: Did this course provide you with new experience (i.e., class activities which you have never had before)?

	Spring 1981					Fall 1981				
School	N	Yes	No	DK	NR	N	Yes	No	DK	NR
Grady	57	88	12	--	--	17	82	12	6	--
North Fulton	41	80	20	--	--	92	73	16	11	--
Roosevelt	23	100	--	--	--	35	86	6	3	6
Total	121	88	12	--	--	144	77	13	8	1

TABLE 11

MAGNET COURSE EVALUATION BY PERCENT OF STUDENTS
SPRING 1981 TO FALL 1981

Question: Will you take another magnet course?

	Spring 1981					Fall 1981				
School	N	Yes	No	DK	NR	N	Yes	No	DK	NR
Grady	57	67	21	7	5	17	76	12	12	--
North Fulton	41	73	20	7	--	92	58	12	26	4
Roosevelt	23	49	43	4	4	35	46	14	20	20
Total	121	65	25	7	3	144	57	12	23	8

The question of whether students would recommend the magnet courses to a friend was intended to serve as a more subtle measure of students' reactions to the program. Data are reported for the fall quarter (1981-82) because this question did not appear on the spring 1981 questionnaire. A majority of those responding at each ESAA site agreed that they would recommend the magnet courses to a friend. Since the pattern of responses for each school is unique, the results will be highlighted by school as well.

TABLE 12

MAGNET COURSE EVALUATION BY PERCENT
PERCENT OF STUDENTS FALL 1981

Question: Would you recommend the magnet course named above to a friend?

School	N	Yes	No	DK	NR
Grady	17	76	12	12	--
North Fulton	92	65	9	22	4
Roosevelt	35	86	--	--	14
Total	144	72	7	15	6

Grady:

There was a noticeable decline in the percentage of students who agreed that the magnet courses fulfilled their expectations, while there was a noticeable increase in the percent who indicated that there was no difference between the interest level of the magnet and regular courses which they had taken. However, their sentiments by the fall quarter (1981-82) were probably related to the need for administrative changes during the quarter and to the late arrival of equipment and supplies. Despite the start-up problems, 76 percent of the students indicated that they would take another magnet course and would recommend the magnet courses to a friend.

North Fulton:

As characteristic of the project trend, the magnet program at North Fulton experienced the most noticeable decline between the two quarters with respect to the interest level of the courses and students' interest in taking additional magnet courses. However, international studies was a more subtle theme, and of the three programs, was the least tied to specialized equipment. Yet, despite the decline in positive responses, by the first quarter (1981-82), a majority of the students still indicated that the program fulfilled their expectations and provided new experiences.

Roosevelt:

In contrast to the project trend, there was an increase in the percent of students who described the magnet courses as being more interesting than their regular courses. However, there was also an increase in the percentage of students who either did not know or did not respond when asked whether they would take another magnet course. During the spring 1981 quarter, only 49 percent of the students indicated that they would take another magnet course. However, this finding is partially explained by the larger percentage of seniors who were enrolled in program during the spring quarter. The results for the fall 1981-82 quarter should be examined further.

By-Products of the Program

As noted previously, one objective of the evaluation was to determine whether participation in the magnet program had a positive impact upon students' overall achievement and attitude toward school. A major difficulty in conducting the evaluation, however, was identifying an appropriate control group. In order to circumvent this problem, a "simulated" control group was selected.

The simulated control group consisted of randomly selected students at each ESAA magnet site who had a 1981 composite California Achievement Tests (CAT) score which fell within one standard deviation of the average score for the total population of magnet students that year. The purpose of this procedure was to identify non-magnet students at each ESAA site whose achievement was similar to that of the initial magnet students. The simulated control group was then matched to the actual group of magnet students at each ESAA site with respect to the number of students, and the percentage of males and females at each grade level. Thus, the simulated control group comprised students who seemed comparable to the magnet students in terms of their achievement, grade level and sex.

When the selection process was completed, there were 177 students in the simulated control group and 181 magnet students with test scores for 1981 (the baseline year), and 1982 (the comparison year). An independent t-test was used to determine whether there was a significant difference between the average CAT score obtained by magnet students in 1982 (i.e., one year after the start of the program) and the average score obtained by students in the simulated control group that year. As an added check, an independent t-test was also used to compare differences between the means for the two groups during the baseline year as well. The normal curve equivalent (NCE) composite score was used as the basis for comparison for both years.

It was hoped that there would be no differences between the groups for the baseline year (i.e., 1981), but that there would be differences between the two groups in 1982 (the comparison year). Unfortunately, the average achievement of the magnet students was higher than that of the simulated control group for both years. This finding indicated that despite efforts to identify a comparable control group, the two groups were still not equivalent initially when achievement test performance was compared. Consequently, the impact of the magnet program upon students' achievement could not be determined from this procedure. The results of the two t-tests are presented in Table 13. A two-tailed test of significance was used in both instances.

TABLE 13

COMPARISON OF ACHIEVEMENT FOR MAGNET STUDENTS AND A SIMULATED CONTROL GROUP

	N	1981 Mean	1981 T	1982 Mean	1982 T
Magnet	181	59.78	3.13 *	60.23	3.07 *
Control	177	53.99		54.41	

* p .01

In order to determine whether the magnet program had a positive impact upon student's attitude towards school, the Student Opinion Poll II, developed by Henriette Lahaderne, was administered to magnet students at the beginning and end of the 1981-82 school year. The survey consisted of 49 multiple-choice questions which required magnet students to evaluate various components of the school environment. Only magnet students having both a pretest and posttest score on the survey were included in the analysis. There were 75 magnet students across all three ESAA sites who met this criterion.

Scores on the survey could range from 0 to 49. Students received one point for each response which matched the answer key. The option of adding an additional point for a student's consistency in responding was not used. The mean scores for students at the three ESAA magnet site are reported in Table 14.

TABLE 14

PRETEST/POSTTEST COMPARISON OF ESAA MAGNET STUDENTS' ATTITUDE TOWARDS SCHOOL

School	N	Pretest Mean	Posttest Mean
Grady	10	29.1	20.0
North Fulton	44	29.8	31.3
Roosevelt	21	22.9	26.6
Total	75	27.8	28.5

A paired t-test was used initially to compare the differences between the pretest and postest means for the total sample. Although the posttest mean for the total project was higher, it was not significantly greater than the pretest mean ($t = -.63$, $df = 74$). A paired t-test was then used to determine whether the posttest means obtained by magnet students at North Fulton and Roosevelt were significantly greater than the pretest means.

The findings indicated that magnet students at Roosevelt exhibited significant improvement in their attitude towards school ($t = -2.20$ $df = 20$, p .05) by the end of the 1981-82 school year. However, although the posttest mean for North Fulton students was higher than the pretest mean, the difference was not significantly greater ($t = -.99$, $df = 43$). The decline in the posttest mean for Grady may have been due to various start-up problems in acquiring needed supplies and equipment.

CONCLUSIONS

Despite start-up problems, the three ESAA magnet programs were successful in achieving many of their objectives. Key participants (e.g., principals, magnet teachers, advisory council members, and workshop participants) indicated that they received an adequate orientation to the program's goals. A majority of the students at each site were also knowledgeable about the programs. Thus, the media campaign was successful in communicating program goals to those involved. However, the success of the media campaign among persons not directly involved with the program's implementation was not assessed.

Responses from both magnet teachers and students indicated that the program was successful in providing students with new experiences. However, the general decline in students' perceptions of the program during the second quarter of operation may have been due to the program's initial inability to meet students' rising expectations.

Despite start-up problems, a majority of the students responded favorably to the magnet program, based upon the percentage of students in the total project who completed course evaluations during the first two quarters of operation.

The statistical analyses presented in this report indicated that the magnet program seemed successful in improving students attitude toward school in one of the ESAA sites. Although the magnitude of the posttest scores was not significant for the total project (i.e. all three schools combined), the positive improvement of the posttest scores at all but one site indicates that the magnet program may potentially influence students' attitude toward school. However, this aspect of the program should be studied further.

In interpreting the findings presented in this report, it is essential to remember that this evaluation was conducted during the initial implementation of the program at the three ESAA sites and does not reflect the current status of the program at these schools. Programmatic differences in the data in many instances may reflect diferences in the start-up problems encountered at each ESAA site, rather than the success of the program at a given site.

RECOMMENDATIONS

1. Consideration should be given to establishing more explicit program objectives both locally and systemwide. In this way, future evaluations could concentrate upon those aspects of the program which are commonly agreed to be signficant characteristics of the program.

2. Many of the initial problems at all three ESAA sites seemed related to several critical elements:

   a. An adequate facility for housing the program.
   b. Sufficient supplies and equipment.
   c. Sufficient planning time.
   d. Stability in funding.

Careful consideration should, therefore, be given to ensuring that these components are in place before formal operation of the program begins.