To determine the effectiveness of magnet middle school programs, a search was initiated for documents from magnet school evaluations. In addition, some students who had attended magnet middle schools were interviewed about their experiences. Most evaluations of magnet middle schools were reports written for local school boards. Evaluations were found for Boston (Massachusetts), Charlotte-Mecklenberg (North Carolina), Chicago (Illinois), Fort Worth (Texas), Houston (Texas), Kansas City (Missouri), and New York (New York). With the exception of the program evaluation from Kansas City, the reports describe magnet schools that were successful. Some of the traits these programs had in common were: (1) committed faculty and administration; (2) parental participation; (3) high expectations for student achievement and willingness to work for this end; (4) seeking to decrease school segregation; and (5) school-wide implementation of the magnet theme. Interviews with three college students who had attended magnet middle schools showed that students appreciated their experiences and learned from them. These students thought that the magnet middle schools had helped prepare them for future studies. (Contains 36 references.) (SLD)
REVIEW OF STUDIES EVALUATING THE EFFECTIVENESS OF MAGNET MIDDLE SCHOOLS IN MEETING SOCIETAL AND EDUCATIONAL GOALS

by

Mike Desiderio
Members of the National Middle School Association, (NMSA), (1995) believe the unique problems of pre- and early adolescents create many challenges for young students. Thus, middle schools need to be "grounded in the diverse characteristics and needs of these young people" (p. 5). In order to meet the needs of these young students, Clark and Clark (1994), tell us that middle schools have developed unique sets of features which include: individual instruction, exploratory courses, interdisciplinary teaching teams, flexible scheduling, and a gradual transition from elementary to secondary education. These features are designed to enable middle schools to become effective schools. Berry, et al (1995) say "The real test of a good middle school is whether all students are achieving. No school can be content with anything less" (p. 3).

Calls for education reform are all around us. Wheelock and Dorman (1992) write that there is a need for middle school reform. Lankard (1992) tells us that one of the factors triggering recent reform movements in education is "the increasingly high dropout and illiteracy rates, along with employers' criticisms that schools are developing workers who lack problem-solving abilities, higher-order thinking skills, and communication/employability skills -- all crucial for work in a global economy" (p. 2). These students are currently labeled as at-risk.
The majority of the at-risk population can be classified as minority students. Ford (1990) reports that dropout rates in United States high schools are highest among the Hispanic and African American populations. Garcia (1994) writes that 40% of Hispanics leave public school prior to graduation. Ford (1990) reports the high school dropout rate for African Americans at 15.5%. These high dropout rates tend to lead towards low paying jobs. Sixty-five percent of Hispanics hold unskilled or semiskilled jobs as compared to 35% of non-Hispanics (Garcia, 1994). Thirty percent of the African American labor force has not graduated from high school (Snyder & Hoffman, 1995). Low paying jobs are associated with households in poverty. Twenty-nine percent of Hispanic households have incomes below the poverty line; a figure that is up from 21% reported in 1979 (Garcia, 1994). Thirty-three percent of African American households also live below the poverty line (Banks, 1997).

Thus a lack of education plays a major role in the statistics cited concerning low paying jobs and poverty. Crain, et al (1992) credit magnet schools, being schools of choice, with making a difference in dropout rates, keeping many at-risk students in school.

Cocchiarella (1991) documented that magnet schools were first established in the 1970s as a result of the efforts of
urban school districts to reverse "white flight", creating a voluntarily desegregation of inner-city schools. Inger (1991) supports Cocchiarella's belief by saying the original purpose of magnet schools was "to create schools so good that they would draw a racial cross-section of students out of the segregated neighborhood boundaries, avoiding the political opposition engendered by mandatory busing" (p. 1). The Institute for Independent Education, Inc. (1989) contend that magnet schools are needed to "fight in the battle to eliminate the twin evils of low achievement and segregation in urban education" (p. 1).

The federal government defines magnet schools as those schools "having a distinctive program of study designed to attract a cross section of students from all racial groups voluntarily" (Peebles, 1982, p. 1). Yet researchers such as Hunter (1994), contend that this definition can be too restrictive. She argues that this limited definition allows for schools that can be too selective, enrolling "only the brightest minority adolescents" (p. 11). Hunter calls this "discriminatory". Doyle and Levine (1983) expand the definition of magnet schools to include "district wide, open-enrollment institutions, thematically organized, which are largely non-selective" (p. 1).

In a national study of magnet schools, Steel and Levine (1994) found that while some magnet schools had academic
selection criteria, most did not. The majority of magnet schools allow students to voluntarily choose to attend based solely on their interests in the school's program. Thus, Steel and Levine conclude that in order for a school to be considered a magnet school, it must:

- provide a distinctive curriculum or instructional approach
- seek to attract students from outside designated neighborhood attendance zones
- have desegregation as an explicit purpose (p. 7).

Magnet middle schools attempt to combine the public mandates of magnet schools with features of middle schools. Almost three decades later, a logical question to ask is how effective is this merger? In seeking to answer this question, effectiveness was defined as progress toward meeting desegregation goals and progress toward improving student achievement. In order to determine the effectiveness of magnet middle school programs, a search for documents evaluating magnet middle schools was initiated. In addition, how students who had attended magnet middle schools felt about their experiences several years after the fact was also studied.

DOCUMENTS

A search of the ERIC database revealed that published documents dealing with the evaluation of magnet middle school programs seemed, at best, scarce. So contact with the president of the Magnet Schools of Texas organization
was initiated. Also contacted was the executive director of Magnet Schools of America, the largest magnet school organization in the United States. It was learned that no data concerning the evaluations or effectiveness of magnet middle schools was available in refereed journals.

All documents used to compile this report were found through a search of the ERIC database. The documents span the years of 1981 to 1995. Upon evaluation of these documents, it became apparent they were reports written for local school boards. Thus, these documents describe and evaluate the effectiveness of magnet middle schools and programs found in the cities of: Boston, MA; Charlotte-Mecklenberg, NC; Chicago, IL; Ft. Worth, TX; Houston, TX; Kansas City, MO; and New York, NY

Boston

Spier, Green, and Banks (1983) describe Thomas A. Edison Middle School as "a place where you can learn" (p. 42). This magnet school uses the theme of career education allowing students "to feel that the Edison is a place where things happen, where real life is brought into school" (p. 42). The four stated goals for this school are to allow individual students to obtain:

- self-awareness and interpersonal relations
- understanding of lifestyle options and career roles
- decision-making and planning skills
- specific academic and vocational skills (p. 44).
A work study program was developed that allowed students to work at such sites as Little City Hall, Mission Hill Recreation Center, Northeastern University, St. Elizabeth Hospital, and the YMCA. The authors state that a high level of commitment by the school's administration and faculty regarding both the magnet program and the middle school concept exists.

This school's program had an immediate impact on students as demonstrated by an increase in both student attendance and academic achievement. By 1980, this program became a model for the school district.

Charlotte-Mecklenberg

Charlotte-Mecklenberg Public Schools (1994) produced an end of year report and evaluation concerning the performance of magnet schools in their district. The original goals of the program were to reduce racial isolation, improve academic performance, increase parental participation, and foster interaction among the various ethnic groups of students.

While not identifying which of the districts' 25 magnet schools are middle schools, this document does state that magnet middle schools have been able to achieve most of these goals. The one area of criticism in the report regarded the academic performance of African-American students. The report documented that while the academic
performance of African-American students in magnet middle schools had slightly increased when compared to the performance of their non-magnet counterparts, these students were not academically performing at grade level. The report emphasized that innovative strategies needed to be developed and implemented to get more African-American magnet middle students performing at grade level.

Chicago

According to a report compiled by the Institute for Independent Education, Inc. (1989), magnet middle schools in Chicago are successful. These magnet middle schools have an average class size of 18 students per teacher. As a whole, middle school students involved in magnet programs scored significantly higher on standardized achievement tests than their non-magnet school counterparts. However, only 6% of both African-American and Hispanic middle school students "are privileged to attend magnet schools" (p. 3). This is approximately one-half of the percentages of both Anglo and Asian-American students attending these same schools.

Ft. Worth

According to Abadzi (1983), The Ft. Worth magnet middle school program began in the 1981-82 academic year with Dunbar Middle School. This program stressed communication, computer science, and science. Students were invited to enter the program based on teacher recommendations.
However, the author states that because the program was so new "it is too early to evaluate this program in a meaningful way" (p. 10).

By 1985, the Ft. Worth magnet program offered four additional sites and themes: finance, medical, Montessori, and arts education (Brooks, 1985). Criteria for program admission were stiffened to include performance on standardized test scores and past behavioral and academic performance reports. Magnet classes had an average student/teacher ratio of 16:1. At the completion of the 1985 school year, magnet middle school students of all ethnic backgrounds obtained higher scores on the Iowa Test of Basic Skills than did students in non-magnet middle school programs.

Brooks states that the magnet middle school programs were able to attract greater numbers of Anglo students than minority students, thus concluding that the program was successful for integration purposes. However, these magnet schools were all part of school-within-a-school (the program is housed in, but separate from an existing school) programs. An examination of the overall school population figures show that Anglo students were a small proportion, 2% to 28%, of the total school populations.
Houston

When describing magnet school programs, Kirkpatrick, Tullis, Sanchez, and Gonzalez (1991b) report a total of seventeen magnet middle school programs within the Houston Independent School District. Of these schools, five focused on fine arts; four on math, science, and computers; six on gifted and talented; and two on Montessori instruction. Magnet schools at the middle grade level were either add-on-programs (extra classes are added to the school day) or school-within-a-school programs.

For each type of school there is specific enrollment criteria that students must meet. Only evaluations for the math, science, and computer schools have been published (Kirkpatrick, Tullis, Sanchez, and Gonzalez 1991a). According to this report, students in these magnet middle schools out performed their non-magnet school counterparts on standardized science and math test scores.

Kansas City

A series of 10 evaluations of magnet middle schools for the 1990-91 school year have been published (Brock, 1991a, 1991b; Clay, 1991a, 1991b; Robinson-Lewis, 1991a, 1991b; Seever, M. L., 1991; Moore, 1991; Seever, M., 1991, 1992). These evaluations paint a picture of magnet programs with formidable problems. These problems include: classes not implementing the magnet theme (Clay, 1991b; Robinson-Lewis,
1991b), communication problems between school faculty and staff (Seever, M., 1991), student discipline problems throughout the school (Brock, 1991b; Robinson-Lewis, 1991a, 1991b; Seever, M, 1991), lack of instructional materials and poor in-service training (Clay, 1991b), and not meeting desegregation goals (Brock, 1991a; Moore, 1991; Seever, M. L., 1991). Only one school had students who obtained scores on the Missouri Mastery & Achievement Test that were at the district average for their grade level (Robinson-Lewis, 1991a). However, these scores still fell well below the State average.

**New York**

An evaluation of school programs during the 1993-94 school year revealed three magnet middle schools, with an additional magnet middle school expected to begin the following year (New York City Board of Education, 1994). All three magnet middle schools were described as having strong administrative leadership, along with well-trained faculty. Furthermore, both administration and faculty were committed to the various magnet school themes and the middle school concept as outlined by the NMSA. Strong parental support for these schools' programs was also indicated.

While this report gives no specific data, it does indicate these schools were generally successful. However,
continued improvement was needed in the areas of academic achievement and racial desegregation.

INTERVIEWS

In July 1996, three Texas A&M University undergraduates were interviewed about their experiences as students in magnet schools during their middle grade years. These individuals were selected for the interviews based on the recommendations of professionals I am acquainted with through the University.

The first interview was with Brandon (personal communication, July 25, 1996), an Anglo male student who attended a magnet school in Austin, Texas. He indicated that this school is located in a socio-economically poor minority neighborhood. Since the school was also outside of his normal attendance zone, he rode a bus to school. Brandon related that his parents came to him with the idea of attending this magnet school because the program emphasized an enhanced science and math curriculum. He went through an application process to gain admission. This particular program followed a school-within-a-school design.

The second interview was with Randy (personal communication, July 29, 1996), an African-American male student who attended a magnet school in Dallas, Texas. This school is located in Randy's neighborhood, which he describes as being predominately minority middle class. He
walked to and from school. Randy applied to enter the magnet program, which emphasized a gifted and talented curriculum. This was also a school-within-a-school magnet program.

The third interview was with Jennifer (personal communication, July 31, 1996), an African-American female student who attended the same magnet school as Randy in Dallas. This school is also located in Jennifer’s neighborhood, so she walked to and from school. She went through the same application process as Randy to enter the program. However, Jennifer is two years younger than Randy, so her accounts of events will be of a different time frame than Randy’s.

What I find remarkable about these three interviews is that despite being from different areas and different times, all three students give basically the same accounts of their experiences. For example, in their respective magnet and honors classes, it was “all business”. Brandon describes the mood of magnet students in their classes as being “ready to go.” When discussing what occurred in the non-magnet classes, the story became quite different.

Jennifer states that the only non-magnet class she had was reading. “In that class, it was a joke. No one bothered to be reading. All the kids were cutting up and joking around. We talked all the way through it.” Brandon
remembers that his non-magnet classmates were "rowdier, cut up, and caused the teachers more stress."

When asked how students of different ethnic backgrounds interacted with each other, Brandon said there was a "definite line" students did not cross. Randy states that, "We never disliked each other. We spoke. But there was no hanging out. Whites sat with Whites; Blacks sat with Blacks; and Hispanics sat with Hispanics." Jennifer remembers that at one point "a riot almost broke out; with lots of fighting between Blacks and Caucasians."

Brandon relates that he "developed an attitude toward some of the (minority) kids ... because they didn't know how to express themselves a lot of times." Brandon now believes that the attitude he had developed was "unfair." This comment lead to asking these students if there were any multicultural awareness classes taught in school. Randy related "None what so ever." Jennifer and Brandon had similar responses. However, Randy continued, "I think it would have been a good idea (to have a multicultural awareness class) because it would help you see why people act the way they act."

When asked about the students' opportunities to participate in extracurricular activities at school, Randy said, "If there was an organization (at school) I was part of it." Jennifer participated in UIL Math competitions.
Brandon, however, was not as fortunate. Brandon wanted to participate in band and orchestra. Practice was held after school but "because I rode the bus, I had to be on the bus to get home."

Brandon was asked if any of the other magnet students were able to stay after school to participate in orchestra or school clubs. His response was, "Most of them were kind of in the same situation where their parents worked and they didn't have any choice but at 3:30 p.m. to get on that bus and go home." Randy and Jennifer remember that the only magnet students who stayed to participate in after school activities were those who's parents came to pick them up.

The last thing asked each student was if attending the magnet school program was worth it to him or her. They all gave positive responses. Brandon, Randy, and Jennifer stated that their respective magnet programs helped them become better students. Each stated that these programs helped prepare them for high school and college. Randy said the magnet program "instilled in him a want to succeed." Brandon related that the magnet program helped him learn to "put myself on a schedule." Jennifer related the magnet program "taught me how to study." All three expressed that if they had to do it over, they would again choose to participate in their respective magnet programs.
CONCLUSION

These documents revealed, with the exception of those for the Kansas City School District, magnet middle school programs that are effective. Some of the common traits these schools have include:

- committed faculty and administration
- parental participation
- high expectations for student achievement and a willingness work toward this end
- seeking to decrease segregation in the schools
- school wide implementation of a magnet theme.

I now believe that in order for a magnet middle school to be called effective, the program must address these listed common traits.

Although the evaluations for the magnet middle school programs in Kansas City were less than favorable, much can be learned from these reports. An effective magnet program requires more than opening the school doors and announcing you are here. Magnet schools must be planned, equipment must be available, and faculty must be sold on and trained in the implementation of the theme. The schools need to become good enough to draw non-minority students to them. This does not happen until there is a coherent team effort between the administration, faculty and staff. Once this is accomplished, student discipline and achievement can be addressed.
From the interviews it was learned that students can appreciate, learn from, and enjoy their experiences in magnet middle schools. According to Brandon, Randy, and Jennifer, these two magnet middle school programs helped prepare them for future learning. By giving students and parents choices in education, we offer them the opportunity to become full partners in the education process.

The interviews also suggested that magnet middle school students who are bussed might not be receiving the full educational benefits available through public schools. As a former schoolteacher and athletic coach, I know that extra-curricular activities play a major role in the education of students. Armstrong, Henson, and Savage (1981) state "the activities program can be a natural vehicle for teaching youngsters to work together in groups while they learn important decision-making skills" (p. 454). Clark and Clark (1994) relate that extra-curricular activity programs are especially needed by middle grade students "because of the special contributions they make to the academic, social, and emotional development of young adolescents" (p. 143). I believe school districts should offer alternative transportation to magnet school students, enabling them to participate in extra-curricular activities.

An additional item of concern revealed during the interviews deals with the social interaction between
students of different ethnic backgrounds. It is apparent from the interviews that while the schools are attempting to meet federal guidelines for desegregation, integration within the schools may not exist.

I recommend that all students attending a magnet middle school be required to take a multicultural awareness course. One of the stated goals of magnet schools is the desegregation of schools. I believe if we are going to put students of different ethnic and cultural backgrounds together, we are obligated to teach students about themselves and each other. Implementing such a course will enable students to "acquire knowledge about a range of cultural groups and develop the attitudes, skills, and abilities needed to function at some level of competency within many different cultural environments" (Hernandez 1989). Or as Randy put it "I think it would have been a good idea (to have a multicultural awareness class) because it would help you see why people act the way they act."

The documents used in this report suggest that magnet middle school programs can be effective if proper planning and implementation occurs. The interviews suggest that magnet middle schools can deliver a quality education. Thus in this time of school reform, magnet middle schools may offer what many are looking for - choice in education, effective schools, and quality education.
BIBLIOGRAPHY


National Middle School Association (1995). This we believe: Developmentally responsive middle level schools. Columbus, OH: National Middle School Association


Abstract of

REVIEW OF STUDIES EVALUATING THE EFFECTIVENESS OF MAGNET MIDDLE SCHOOLS IN MEETING SOCIETAL AND EDUCATIONAL GOALS

Magnet middle schools (MMS) attempt to combine the features of magnet schools with those of middle schools. Documents evaluating various magnet middle school programs were reviewed to determine how effective this merger has become. Interviews with university students who previously attended magnet schools during their middle-grade school years were also conducted and analyzed.

It was discovered from the documents that common traits of effective MMS programs include:
- committed faculty and administration
- parental participation
- high expectations for student achievement
- decrease segregation in schools
- implementation of the magnet theme.

Interviews revealed that MMS helped prepare these individuals for future learning. It was also discovered that these students enjoyed their magnet school experiences. Two areas of concern cited are:
- ability of students to participate in after school activities
- lack of integration in the classroom.

Two recommendations are suggested for dealing with these concerns.
**REPRODUCTION RELEASE**

*Specific Document*

**I. DOCUMENT IDENTIFICATION:**

<table>
<thead>
<tr>
<th>Title:</th>
<th>A Review of Studies Evaluating the Effectiveness of Magnet Middle Schools in Meeting Societal and Educational Goals.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Author(s):</td>
<td>Mike Desiderio</td>
</tr>
<tr>
<td>Corporate Source:</td>
<td>Publication Date:</td>
</tr>
</tbody>
</table>

**II. REPRODUCTION RELEASE:**

In order to disseminate as widely as possible timely and significant materials of interest to the educational community, documents announced in the monthly abstract journal of the ERIC system. Resources in Education (RIE), are usually made available to users in microfiche, reproduced paper copy, and electronically-optical media, and sold through the ERIC Document Reproduction Service (EDRS) or other ERIC vendors. Credit is given to the source of each document, and, if reproduction release is granted, one of the following notices is affixed to the document:

If permission is granted to reproduce and disseminate the identified document, please CHECK ONE of the following two options and sign at the bottom of the page.

- **Check here** For Level 1 Release:
  - Permission to reproduce in microfiche (4" x 6" film) or other ERIC archival media (e.g., electronic or optical) and paper copy.

- **Check here** For Level 2 Release:
  - Permission to reproduce in microfiche (4" x 6" film) or other ERIC archival media (e.g., electronic or optical), but not in paper copy.

Documents will be processed as indicated provided reproduction quality permits. If permission to reproduce is granted, but neither box is checked, documents will be processed at Level 1.

---

*I hereby grant to the Educational Resources Information Center (ERIC) nonexclusive permission to reproduce and disseminate this document as indicated above. Reproduction from the ERIC microfiche or electronically-optical media by persons other than ERIC employees and its system contractors requires permission from the copyright holders. Exception is made for non-profit reproduction by libraries and other service agencies to satisfy information needs of educators in response to discrete inquiries.*

**Sign here please**

<table>
<thead>
<tr>
<th>Signature:</th>
<th>Mike Desiderio</th>
</tr>
</thead>
</table>

**Printed Name/Position/Title:**

| Mike Desiderio |

**Telephone:**

| (406)895-8227 |

**Fax:**

| (406)895-9663 |

**E-Mail Address:**

| MFD8515@Acs. Tamu. Edu |

**Date:**

| 7/8/97 |

*Total P. 03*