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Students' and Parents' Perspectives on a Magnet School's Effectiveness

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ABSTRACT. Brown Barge Middle School, located in the Escambia County School District, Florida, is a voluntary magnet school. Characteristics of Brown Barge Middle School include: 1) a flexible schedule that can accommodate extended time blocks for instruction, planning, and special events; 2) technology components that are incorporated in the core curriculum; and 3) an integrative and cooperative cross grade level approach to designing and implementing curriculum and instruction. The purpose of this study was to examine Brown Barge students' and their parents' attitudes towards these characteristics. The results indicated that the integrated approach in the curriculum design implemented at Brown Barge Middle School was viewed positively by most students and their parents.

The purpose of the Magnet Schools Assistance Program is to provide grants to eligible local educational agencies to support magnet schools that are part of approved desegregation plans. Typical characteristics of magnet schools include locations in minority neighborhoods and innovative educational curricula. In addition, magnet schools may be of two types, mandatory or voluntary (Rossell, 1985). Mandatory magnet schools are designated as such because the entire school system is required to desegregate, with the magnets mostly serving as curricula alternatives. Voluntary magnet schools allow parents the choice between one's neighborhood school or a desegregated magnet school. Brown Barge Middle School, located in the Escambia County School District, Florida, is a voluntary magnet school. The Magnet School Assistance Program provided funding to support the school in the 1991-92 and 1992-93 school years. Characteristics of Brown Barge Middle School include: 1) a flexible schedule that can accommodate extended time blocks for instruction, planning, and special events; 2) technology components that are incorporated in the core curriculum; and 3) an integrative and cooperative cross grade level approach to designing and implementing curriculum and instruction.

Thematic unit lessons (streams) provide broad areas of study based on a central idea or concern with which the student can identify. Themes (stream topics) are inferred from the results of periodic surveys of students, parents, and faculty. A Three Tier System which includes Acquisition, Application, and Simulation Tiers provides the structure necessary to deliver this approach to content. Each stream demands the use of specific knowledge areas and skills.

At Brown Barge Middle School the school year is divided into nine week quarters. Each quarter the students register for one stream. Prior to registration, each student receives the course offerings which include the title, topic, premise and description for each stream. During the first week of each stream, the students are presented with: 1) a rationale for the overall stream topic; 2) application content, activities, and products; 3) simulations and products; 4) student evaluation criteria; and 5) a description of the technology involved and how it is to be used.

# **Background of Magnet Schools**

Little research exists on the effectiveness of magnet schools. Limited empirical data also exists for traits that parents and students find attractive in magnet school designs. Rossell (1985), however, identifies specific characteristics common to most magnet environments and targets methods to encourage enrollment in such schools to assist desegregation.

Regarding enrollment, Rossell (1985) states that historically problems exist in attracting and maintaining whites in magnet schools located in black neighborhoods. Past and projected racial composition affects the degree of success in getting and keeping whites in such schools. A minimum of 55% white projected racial composition is deemed necessary. She proposes that enrollment criteria and ratios need to be monitored closely to maintain the above balance. Rossell (1985) concludes from her research that magnet schools located in isolated minority neighborhoods are most successful when innovative curricula is employed in elementary schools and highly academic curricula is the orientation in secondary magnet schools. Furthermore, the greater the selectivity (or at least perceived selectivity) for identification of students, the more successful the effort in desegregation. Relevant to the above findings, Rossell explicates that research over the last three decades documents that higher social classes are more racially accepting and supportive of desegregation. Additionally, important class differences exist among social classes concerning educational values and preferences.

Kohn (1976) states that parents of the working class prioritize their children's conformity to extrinsic standards, control, and authority. Middleclass parents stress intrinsic control more. Middle class parents also prefer child-centered curricula practices whereas the working class prioritize adultcentered teaching styles.

Rossell (1985) identifies other specific factors that influence the success of magnet school desegregation, including: 1) assigning popular principals and teachers to magnet schools; 2) maintaining a low pupil-teacher ratio; 3) providing an attractive, well-equipped school; 4) minimizing busing distances; 5) having separate facilities from other schools; and 6) selecting locations for magnet schools that parents deem acceptable.

Research indicates that mandatory magnet schools would fare better if first they allowed parents to choose from among the minority magnet schools and then assigned any remaining seats in these schools by mandatory reassignment. Rossell (1988) found in a study of 20 school districts that voluntary transfers produced more long-term interracial exposure than did mandatory reassignments. Nonetheless, even mandatory approaches to desegregation have proven more effective than if no plan had been designed to achieve this goal.

# Purpose of the Study

Barry, Pearson, and Wentz (1993) surveyed nine middle school principals in the Escambia County School District to determine their attitudes toward Brown Barge Middle School. These findings were reported in the 1993 *Florida Journal of Educational Research*. Forty-four middle school teachers who had prior knowledge of the magnet school were also surveyed. The Middle School principals thought Brown Barge was a school with an elitist environment for the able learner. Three principals indicated that Brown Barge's implementation of the integrated curriculum would serve as a role model for other middle schools. The other principals indicated that Brown Barge only pulled top students out of their neighboring communities and made no impact on current practices; had "computers for everyone" because it had the money from the grant to buy them; yet, would force higher standards to be set in their own schools which in turn would improve student acquisition of knowledge. A small number of principals reported that Brown Barge would get more attention and possibly hurt overall county efforts to support all schools. The results of a thirty-two item Likert instrument pertaining to attitudes about the magnet school concept indicated that teachers not teaching in a magnet program had somewhat unfavorable attitudes toward the magnet school concept.

The purpose of this study was to examine Brown Barge students' and parents' attitudes toward the curriculum, instruction, and assessment procedures at Brown Barge Middle School. The findings of this study and the Barry, Pearson, and Wentz (1993) study can provide insight into both internal and external audiences' viewpoints toward magnet schools.

# Method

# **Procedures Used to Examine Parent Attitudes**

With the collaboration of several Brown Barge faculty, parent surveys were developed in an attempt to ascertain attitudes and perceptions toward program effectiveness. An instrument was developed by first reviewing the literature related to middle school students as well as the curriculum streams. The following factors were highlighted: knowledge and approval of the curriculum streams, study skill development, avoidance of grade level and ability grouping, admission and selection criteria, student motivation for learning, social concerns, parental involvement and satisfaction with the school, use of technology, and school safety. The instrument was finalized after input was received from the principal and a team of teachers. The final version contained 27 items that the parents responded to utilizing a Likert scale that ranged from 1 "strongly disagree" to 5 "strongly agree." The instrument also consisted of three open-ended response items. The survey was mailed to the entire population of parents (N=498); over 68% responded. A wide range of ethnic groups with diverse education was included in the sample. Pilcher, et al.

# **Procedures Used to Examine Student Attitudes**

In the 1992-93 school year Brown Barge Middle School had a total of 505 students. There were 181 sixth graders, 168 seventh graders, and 156 eighth graders. Thirty-four percent of the students were minority and approximately 40% of the students attending Brown Barge were gifted students; that is, they had a score of 130 or above on the WISC-R.

One of the purposes of the study was to determine student attitudes toward their experience at Brown Barge. Three sources of information were used to assess student attitudes: 1) open-ended survey responses to curriculum (stream) implementation; 2) an eighth grade exit survey; and 3) student journal entries.

<u>Stream implementation survey</u>. An open-ended questionnaire developed by Brown Barge Middle School teachers was administered to all students after the implementation of the second nine-week stream (thematic curriculum) session. The questions were: 1) Explain in a few sentences how you can use what you learned during the last stream; 2) If you were teaching the stream, what would you have done to make the activities more valuable; 3) Do you find working in groups easier now than you did at the beginning of the school year (why or why not); and 4) Do you feel comfortable bringing a problem to a teacher?

The responses of students within four streams (Dwellings, Flight, Elections, Futures) were analyzed by grade level and gender. Responses were first separated into major categories. Frequencies of responses within each category across grade level and gender were then reported and summarized.

Eighth grade exit surveys. In May 1993 Brown Barge eighth graders were asked to complete an exit survey. The survey consisted of six multiple choice response items and three open-ended questions. Selected Brown Barge teachers, the principal, and two field researchers developed the instrument to determine if students had a favorable attitude toward their experiences at Brown Barge Middle School. The percentage of responses for each multiple choice item and a summary of the responses to the three open-ended questions were reported.

<u>End-of-Year journal entry</u>. During the course of the year Brown Barge students entered writings into their student journals. At the end of the year students were requested to write on their perceptions of Brown Barge's strengths and weaknesses. A systematic random sample of 30 journal entries were used to determine similarities and differences in perceived school strengths and weaknesses.

#### Results

#### **Parent Attitudes**

The percentage of responses in each category to the 27 item Likert instrument are displayed in Table 1. Fifty percent or more of the parents selected "agreed" or "strongly agreed" to specific questions, with the exception of Question 12. Parents did not believe they were more involved in their child's education since entrance into Brown Barge. This could simply imply that the parents had previously been highly involved in their child's educational process; that is, the school has not necessarily influenced their degree of participation in school events. Parents had favorable attitudes toward the integrated school curriculum, the policy and procedures of the school, the technology components, and the teacher assistance provided to their child in and out of class.

Parents also expressed some concerns they had about their child's educational experience at Brown Barge Middle School. The open-ended responses indicated the greatest concerns in the following rank order based on frequency of responses:

- 1) not enough mathematics (73)
- 2) not enough science (26)
- 3) band students are experiencing too much difficulty in their desire to participate (21)
- 4) afraid child will not be prepared for high school (18)
- 5) computer instruction and equipment promised was not as expected (13)
- 6) feedback to child not timely or enough (12)
- 7) bus rides too long (9)
- 8) homework load is not balanced (8)
- 9) group projects are not effective because equal participation is not always present (8)
- 10) don't like Brown Barge's grading system (8)

Pilcher, et al.

# Table 1Responses to Parent Survey

Questions	strongly agree	agree	undecided	disagree	strongly disagree
approve of use of curriculum	30.5	36.8	22.5	7.9	2.2
curriculum streams were communicated effectively	19.1	47.0	16.3	12.2	5.3
like streams located in one area	31.2	45.1	19.6	2.2	5.3
child can get "extra help" from teachers during class	15.9	48.4	24.1	8.8	2.8
child can get "extra help" from teachers after school	13.9	45.1	28.4	9.5	3.2
child can get "extra help" from students in his/her stream	19.6	54.2	20.8	3.8	1.6
like child placed in classes with mixed grade levels	24.5	32.3	18.5	9.4	15.4
like child placed in classes with mixed ability levels	22.2	40.0	20.9	9.7	7.2
approve of the admission criteria	22.6	53.6	14.7	7.2	1.9
approve of the selection process	16.1	47.5	20.6	11.4	4.4
curriculum interests my child	35.8	49.1	7.6	6.3	1.3
am now more involved in my child's education	14.2	30.5	16.4	31.8	7.2
child got to know other students	32.9	55.8	7.8	3.1	0.3
what child learns will prepare he/she for the future	37.9	47.0	12.6	2.2	0.3
child can handle work load	46.2	50.3	2.8	0.6	0.1
proud of my child's school work	39.7	44.2	12.3	3.5	0.3
recommend BB to other parents	42.6	30.7	19.7	3.4	3.4
technology has enhanced my child's learning	46.1	39.2	10.3	2.2	2.2
child is comfortable using technology	53.5	41.5	3.2	1.3	0.6
child is safe at BB	36.8	52.2	8.5	2.2	0.3
orientation stream helped my child adjust to streams	26.9	50.3	13.9	7.6	1.3
streams improve child's study skills	26.0	48.9	15.2	8.6	1.3
child receives recognition when earned	14.6	50.0	25.2	7.3	2.9
if child has a problem, can go to staff for help	20.4	53.5	19.7	4.8	1.6
attend school meetings because they are beneficial	15.2	61.8	13.6	8.1	1.3
programs include special activities for my child	40.3	52.7	3.2	2.9	1.0
believe curriculum restructuring is needed at the high school level	35.3	23.0	26.2	9.1	6.5

Although parents expressed some concerns about their child attending Brown Barge, a number of parents responded that their child looks forward to going to school.

# **Student Attitudes**

<u>Survey Responses to Second Nine-Week Streams</u>. The four streams of the second nine-week session were *Dwellings*, *Future*, *Elections*, and *Flight*. Students in each of the streams responded to four questions. A summary of the responses is provided.

The major response by students on how they used what they learned in the *Dwellings Stream* indicated they were able to build structures for survival. In the *Futures Stream*, those surveyed purported they had a clearer idea of what the future holds, including a better awareness of how to get a job. Most respondents stated they could use the knowledge learned about hydroponics to grow plants without soil. The responses in the *Elections Stream* consistently indicated a better understanding of government's function and an increased awareness of the significance of being an informed, responsible voter. The responses of students in the *Flight Stream* suggested they possessed a clearer understanding of the mechanics of all types of flight.

The second question requested for students to suggest how teachers could make activities in the streams more valuable. In the *Elections Stream* and *Futures Stream* most respondents were satisfied with the overall design of the stream. In the *Dwellings Stream*, the sixth graders more than the seventh and eighth graders seemed to enjoy the procedures and content employed in this stream. In the *Flight Stream* a preponderance of satisfaction with the curriculum prevailed for all grades and both genders, except females in grade seven. Seventh grade females wanted more clarity in application usages of material taught. Students from all streams suggested that the streams include an increased number of field trips, hands-on activities, and games.

Third, students were asked if they found working in groups easier now than at the beginning of the school year. Table 2 displays student responses to question three. With the exception of seventh grade females, the overwhelming responses to the question indicated that the students were more comfortable working in groups than they were at the beginning of the school year. Fortyfive percent of the females in grade seven stated they liked both working in groups and working alone. They also expressed concern about some members in the group not working. Most students included reasons why it was easier to work in groups: "they have made new friends and know more people;" "they

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Table 2 Responses to Group Dynamics are used to doing it;" "they can share the work and ideas;" and "they can get the work done faster." Concerns and dislikes about working in groups included people disagreed, and some students just preferred working alone. Some students claimed it has always been easy for them to work in groups.

The fourth question students responded to pertained to how comfortable they felt bringing a problem to a teacher. Table 3 displays student responses to question four. For all grade levels and both genders, except eighth grade females, the respondents to the survey generally felt comfortable addressing problems with teachers. Eighth grade females were evenly divided between "yes" and "no" responses with an additional two claiming "maybe," depending on the teacher. Reasons for addressing problems with teachers included: "teachers are suppose to care and help;" "they are understanding;" and "teachers are trustworthy." Negative responses to the question resulted in such reasons as: "a teacher's job is to help you learn;" "teacher's are not problem solvers," and "it is embarrassing."

End-of-Year Journal Entry. Regarding the "streams," students overall expressed they were "great," "fun," and that they learned a lot from the stream approach. The favorite streams were: *Future Stream*; *Flight Stream*; and *Art Motifs Stream*. They particularly enjoyed the field trips to Cape Canaveral and the Space Camp. The streams most often listed as boring, not well organized, or just not particularly liked were the *Bridges Stream* and the *Global Awareness Stream*. However, they liked the simulations in the *Bridges Stream*. Several students stated they liked all the streams. One student stressed that the *Weather Stream* provided an excellent blend of math, science, history, and English, and that it proved to be very challenging. Several liked the simulations in the *Dwellings Stream*, where they made aborigine structures and a scaled model building.

Concerning attitudes toward multi-age grouping, students' responses were mixed. Some sixth graders particularly indicated dislike for it. Others saw it as an opportunity to learn from each other. One student felt eighth grade should be more departmentalized to resemble high school.

Working cooperatively in groups (doing group projects and presentations) was viewed positively overall, according to the responses. Many students stated they particularly liked the following: 1) hands-on activities; 2) field trips; and 3) technology opportunities.

Table 3 Responses to Teacher-Student Relations

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Table 3 (Continued)

QUESTION #4:		ortable bringing a	Do you feel comfortable bringing a problem to a teacher? If not, why not?	her? If not, why	ot, why not?
GR	GRADE 6	GRADE 7	DE 7	GRADE 8	DE 8
MALE	FEMALE	MALE	FEMALE	MALE	FEMALE
"NO" RESPONSES	"NO" RESPONSES	"NO" RESPONSES	"NO" RESPONSES	"NO" RESPONSES	"NO" RESPONSES
o I don't know	<ul> <li>A teacher's job is to helo you learn</li> </ul>	o It's difficult	o Is embarrassing	O Don't know me well	<ul> <li>They think you're talking back to</li> </ul>
• Teachers aren't for telling problems to	• I just don't	0 Not problem solvers	o Can't understand		them
					O Can't trust
	• Because sometimes the problem is the				
	teacher				
	<ul> <li>They yell at me no matter what I do</li> </ul>				
	0 I don't like to go to				
	anyone with my problems				
	O I don't feel I can trust most of them. What if they call parents				
	O I barely get answered				
	<ul> <li>I can handle it myself</li> </ul>				
	O They ask too many questions				
	<ul> <li>I think they make fun of me in their minds</li> </ul>				

Several students expressed concern that the overall curriculum was too easy. As one said, they "...go into academic skills too lightly." Several students requested that the streams and simulations be made longer. They also expressed a desire to have more freedom in choosing their streams. One student requested a stream be provided on oceanography. Another student requested a sports stream to encourage athletics. In summary, one student sized up the curriculum at Brown Barge this way: "You learn about the same *amount* of things here, (as at another school) but you learn more *important* things here."

<u>Eighth grade exit survey</u>. On items one through six students were asked to select one best response. The percentage for each response is given for the choices under each item. On questions seven through nine students were asked to write in responses. Summaries of the responses are presented under each question.

- 1. As you prepare to exit Brown Barge which word best describes how you are feeling about entering high school?
  - a. confident (38%)
  - b. excited (30%)
  - c. unsure (24%)
  - d. unprepared (8%)
- 2. Which of the following terms best describes your attitude toward your experience as a student at Brown Barge?
  - a. fortunate to have been a student here (73%)
  - b. ready to go back into the separated curriculum as found at the high school setting (26%)
  - c. prepared to receive higher education (21%)
  - d. undecided about where I am academically (16%)
- 3. Which phrase best describes what you learned the most at Brown Barge?
  - a. academic content in writing (58%)
  - b. a balance of academic content, in all three areas (30%)
  - c. academic content in math (8%)
  - d. academic content in reading (3%)

- 4. Which phrase best describes how you feel about working in groups in the classroom?
  - a. it was okay (67%)
  - b. very happy (20%)
  - c. didn't like it (12%)
  - d. I rarely worked in groups (1%)
- 5. When you worked in groups how were grades assigned, most of the time?
  - a. We each received individual grades. (36%)
  - b. We never knew how the grade was assigned. (25%)
  - c. We never received the same grade. (25%)
  - d. We were evaluated and received feedback on our performance, but we were not "graded". (14%)
- 6. Which type of class organization do you prefer?
  - a. separate grades (eighth grade only) (65%)
  - b. mixed grades (6th, 7th and 8th grades) (35%)
- 7. What was your favorite activity while a student at Brown Barge?

The majority of students in the 8th grade identified the following as their favorite activities, in priority order: going on field trips, especially Tiki Island and the Space Center in Huntsville; P.E., especially the Olympics; participating in the band and building structures in the Dwellings Stream. The high-school booklet composition, the environmental clean-up activity and the hot-air-balloon assignment were also seen as significant activities to the exiting 8th graders.

8. In one sentence what is the greatest strength of the education you received at Brown Barge?

The vast majority of 8th graders saw the opportunity to develop writing skills as the greatest strength of the Brown Barge curriculum. Learning how to work in groups or how to communicate was seen as the second greatest strength. Other positive comments included the use of computers and the development of confidence about generic learning in all areas. Pilcher, et al.

9. In one sentence what is the one area Brown Barge needs to address to improve the curriculum?

The greatest weakness in the curriculum at Brown Barge according to 8th grade students is math skills. Secondly, organization and communication among teachers were identified as a need. Also, a greater balance among all subject-area instruction was designated. Finally, several students suggested using separate grade level grouping rather than multi-age grouping.

# Conclusions

The integrated approach in the curriculum design implemented at Brown Barge Middle School was viewed positively by most students and their parents. Students basically viewed the stream approach as fun and educational. Seventyseven per cent of all students sampled of both genders were able to specify knowledge gleaned from their stream experiences. Concerning specific streams, students repeatedly requested more time to complete projects, more hands-on activities, and more field trips. Students did not like streams that were considered either boring or not well organized. Furthermore, students consistently expressed the desire to have more input into the selection of stream titles and also wanted more simulation activities.

Concerning content in the streams, the vast majority of students felt confident in their writing ability gleaned from the integrated instruction they received at Brown Barge. However, many students expressed concern for the lack of math instruction they received throughout the school year. In fact, only 30% of the eighth grade students felt they received a proper balance of academic content in reading, writing, and math. A rather large number of parents were also concerned about the amount of math instruction implemented in the curriculum streams, and some parents noted that the homework load in subject areas was unbalanced. Furthermore, some students expressed in their journal writings that the overall curriculum was too easy. Nonetheless, the eighth grade exit survey revealed that 68% of the student body exiting Brown Barge felt either confident or excited about entering high school, and 73% of them felt fortunate to have been a student at Brown Barge. A number of parents, however, were afraid that their child would not be prepared for high school.

A major student concern addressed through surveys and journal writings was their attitudes toward cooperative learning. Students overwhelmingly responded that their experience at Brown Barge had helped them work in groups

- 4. Which phrase best describes how you feel about working in groups in the classroom?
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- 6. Which type of class organization do you prefer?
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- 7. What was your *favorite activity* while a student at Brown Barge?

The majority of students in the 8th grade identified the following as their favorite activities, in priority order: going on field trips, especially Tiki Island and the Space Center in Huntsville; P.E., especially the Olympics; participating in the band and building structures in the Dwellings Stream. The high-school booklet composition, the environmental clean-up activity and the hot-air-balloon assignment were also seen as significant activities to the exiting 8th graders.

8. In one sentence what is the greatest strength of the education you received at Brown Barge?

The vast majority of 8th graders saw the opportunity to develop writing skills as the greatest strength of the Brown Barge curriculum. Learning how to work in groups or how to communicate was seen as the second greatest strength. Other positive comments included the use of computers and the development of confidence about generic learning in all areas. 9. In one sentence what is the one area Brown Barge needs to address to improve the curriculum?

The greatest weakness in the curriculum at Brown Barge according to 8th grade students is math skills. Secondly, organization and communication among teachers were identified as a need. Also, a greater balance among all subject-area instruction was designated. Finally, several students suggested using separate grade level grouping rather than multi-age grouping.

# Conclusions

The integrated approach in the curriculum design implemented at Brown Barge Middle School was viewed positively by most students and their parents. Students basically viewed the stream approach as fun and educational. Seventyseven per cent of all students sampled of both genders were able to specify knowledge gleaned from their stream experiences. Concerning specific streams, students repeatedly requested more time to complete projects, more hands-on activities, and more field trips. Students did not like streams that were considered either boring or not well organized. Furthermore, students consistently expressed the desire to have more input into the selection of stream titles and also wanted more simulation activities.

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A major student concern addressed through surveys and journal writings was their attitudes toward cooperative learning. Students overwhelmingly responded that their experience at Brown Barge had helped them work in groups more easily. The second greatest strength identified by exiting eighth grade students was their ability to work and communicate in group settings. Eightyseven percent of these students stated working in groups was either an okay or very happy experience. A small number of parents did not believe that equal participation in groups by students occurred.

Twenty-five percent of the exiting 8th graders stated they did not know how they were graded. Also, 25% said all group members received the same grade. Some parents claimed they did not like the grading system employed at Brown Barge.

One specific aspect of student grouping requires additional attention. Mixed attitudes existed among students about multi-age groupings. On the student surveys for exiting 8th graders, 65% indicated they preferred separate age groupings to multi-age groupings. Likewise, in the student journal writings, several sixth graders stated they disliked the multi-age groupings. Although over half of the parents liked their child placed in mixed grade levels, approximately 15% strongly objected.

Teacher-student relations was the third and final area of focus of student input using surveys and journal writings. A resounding "Yes" was the response of the vast majority of the students' feelings toward approaching teachers with their affective concerns. Basically they stated they trust the teachers at Brown Barge. Similarly, 70% of the parents believed their child could approach teachers to receive help.

The Magnet School Assistance Program has encouraged and supported a number of schools, including Brown Barge, in their restructuring effort. Except for a few areas, students and parents seem to be satisfied with the curriculum, instruction, and assessment innovations implemented at Brown Barge Middle School. In fact, Brown Barge students and their parents had a more favorable attitude toward the middle school restructuring effort than other district middle school principals and teachers. External educators were concerned about how the magnet middle school would effect the public perception of their school, and to what degree they would be forced to change. The parents and students of Brown Barge addressed the curriculum and instruction procedures implemented in the school rather than the perceptions others had toward the existence of the school.

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