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ABSTRACT

This study examined schools which had successfully blended gifted education programs into middle school environments in order to provide outstanding services to gifted middle grades students, and sought to determine the factors that made this successful blending possible. Five sites were visited from a variety of settings and schools that used various service delivery models. The five specific sites included: (1) Brewster Middle School (North Carolina); (2) Wilson Middle School (Oklahoma); (3) Western Middle School (North Carolina); (4) Burbank Middle School (Michigan); and (5) Meads Mill Middle School (Michigan). Factors that were found to be critical or important to program effectiveness at all five sites included: school site administrators who demonstrated a clear commitment to the middle school philosophy and provided a challenging environment for all students, autonomy of principals and teachers, availability of expertise and human resources, enthusiasm of students and teachers, a sense of trust and commitment to the school, and curriculum differentiation which used some form of instructional (ability/performance) grouping and enrichment. Schools used a variety of service delivery models, including pull out classes, separate classes, and team clusters. The one common element was that students were grouped by ability and/or performance for language arts and mathematics instruction. The study concluded that it is possible to blend appropriately differentiated services for gifted students into schools operating within an authentic middle school paradigm. (Contains 24 references.) (JDD)

MIDDLE SCHOOL SITE VISIT REPORT: FIVE SCHOOLS IN PROFILE

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April, 1993

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EXECUTIVE SUMMARY

The Gifted Education Policy Studies Program (GEPSP) of the Frank Porter Graham Child Development Center, University of North Carolina at Chapel Hill, was established to analyze and seek solutions to two major issues affecting full educational services to gifted students. These issues are: (a) state and local policies regarding eligibility for gifted programs for special populations of gifted students; and (b) educational reform efforts (cooperative learning and the middle school movement) which may affect services to gifted learners.

The study reported here is the second of the two studies focused on gifted education in the middle schools. The first (Coleman and Gallagher, 1992) reported the results of a survey of attitudes and practices surrounding the education of gifted students in the middle school environment. A comparison of responses from middle school educators and educators of the gifted indicated some differing perceptions of the two groups concerning how gifted students' needs should be met in middle school programs.

Many of these differences were in the intensity with which the respondents believed; however, responses to some issues were more polarized. The two groups disagreed on the benefits of grouping gifted students, as well as on the labeling of students as "gifted." The middle school respondents expressed concern over both these areas while respondents from gifted education were favorable toward these practices. Both groups agreed that: (a) the regular middle school curriculum will not challenge gifted students; (b) some aspects of the programs for gifted students would benefit others; (c) programs for gifted students do provide emotional support; (d) Middle school teachers need more preparation to work with gifted learners; (e) little collaboration currently takes place between gifted and regular education; and (f) program evaluation needs to be strengthened.

Given these perceptions, the purpose of the current study was to examine schools which had successfully blended the two programs, providing outstanding services to gifted middle grades students, and to determine the factors which make this successful blending possible.

Nominations of schools were solicited from professional organizations and state departments of education. Five sites were selected based on a set of criteria reflecting both an authentic middle school configuration and a commitment to gifted education. We also looked at demographic considerations in an effort to have schools from a variety of settings and schools that used a variety of service delivery models.

Each site visit encompassed a two-day period and involved interviews with key people, focus group sessions, classroom observations, and document reviews. At least two staff members participated in each site visit, and one participated in all five.

Following the site visits, factors thought to be influential in program effectiveness were identified. These included leadership, commitment to gifted students, staff development, autonomy, availability of resources, attitude within the school, curriculum differentiation, affective program, teaming, written plan, and evaluation. These factors were rated on a 4-point scale from critical to insignificant according to its influence at each site (see Table 1a). The factors that were found to be critical or important at all

sites included: school site administration; autonomy of principals and teachers; availability of expertise and human resources; enthusiasm of students and teachers; a sense of trust and commitment to the school; and curriculum differentiation which used some form of instructional (ability/performance) grouping and enrichment.

School site administrators played a key role in program success. In these schools there was a clear committment to both the middle school philosophy and to providing a challenging environment for all students, including the gifted. Principals and teachers alike indicated they felt a sense of autonomy; that is, they felt empowered to make decisions and to create learning environments which promote student achievement.

Teacher and students were enthusiastic about, and committed to, their school program. An atmosphere of trust pervaded among administrators, teachers, and students. No "Us versus Them" attitudes divided the school community. At each site there was at least one person who had a great deal of expertise on meeting the needs of gifted students. The presence of this individual seemed critical to program success. Also critical was the provision of some form of curriculum differentiation for high ability students. The two areas of differentiation identified at all of the schools were ability/performance grouping for instruction and enrichment opportunities.

Other factors varied in their level of importance at the different sites. Teacher leadership, school site commitment to gifted students, staff development on gifted education, planning time and team teaching were important variables in four of the five sites. A written plan for gifted programs was found in four of the five schools, as were several forms of curriculum differentiation.

The current study also looked at the type of service delivery model provided in each school ("pull out" class, separate class, team cluster). In one school, pull-out classes were scheduled on a rotating basis so that students did not miss regular classes more than once a week. In another school, the gifted class was taught during a school enrichment period in which all students participated in some form of enrichment class. Separate classes of gifted students were used in two schools, while three schools placed all the students identifited as gifted on the same team. The one common element in the schools was that students were grouped by ability and/or performance for language arts and mathematics instruction.

The major finding of this study was that it is possible to blend appropriately differentiated services for gifted students into schools operating within an authentic middle school paradigm. A number of factors were identified which appear crucial to blending the two initiatives. However, there was enough variance in other factors to suggest that approaches can be highly individualized and still lead to successful collaboration.

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Table 1a

Key Factors Influencing the Success of Middle School Programs for Gifted Students*

	A (Critical)	B (Very Important)	C (Somewhat Important)	D (Little or No Importance)
1. Leadership				
-Central Office Administration	••		••	•
-School Site Administration +	•••	••		
-Teachers	••	••	•	
-Parent/Advocates			••••	•
2. Commitment to Gifted Students				
-School Site	••	••	•	
-School system	•	•	•••	
3. Staff Development				
-Middle School Model	•••		••	
-Gifted Learners	•	•••	•	
4. Autonomy				
-Administration (School Site) +	••••	•		
-Teachers +	•••	••		
5. Availability of Resources				
-Materials/Physical	••	•	•	•
-Expertise/Human +	••••	•		
-Time	•••	•	•	
-Community	••	•		••
6. Attitude Within the School				
-Enthusiasm (Students) +	•••	••		
-Enthusiasm (Teachers) +	•••	••		
-Trust +	••••	•		
-Commitment to School +	••	•••		

* Each dot (•) represents one school

+ Indicates factors which were critical or very important in all schools

Table 1a (continued)

	A (Critical)	B (Very Important)	C (Somewhat Important)	D (Little or No Importance)
7. Curriculum Differentiation				
-Instructional Grouping (ability/performance) +	••••	•		
-Mentor Programs	•		•	•••
-Interdisciplinary Units	•••		•	•
-Flexible Pacing	•	•••		•
-Enrichment +	••••	•		
-Independent Studies	•	•	••	•
-Advanced Content (Sophistication)		••••	•	
-Thinking Strategies	••	••	•	
8. Affective Program				
-Counseling	•	••	••	
-Advisor/Advisee	•	•	•	••
-Group Work	•	••		••
-Families/Teams	•		••	••
9. Teaming				
-Teachers	•••	•	•	
10. Written Plan				
-Plan for Gifted Students	••	••		•
11. Evaluation	••	•	•	•

* Each dot (•) represents one school

+ Indicates factors which were critical or very important in all schools

Introduction

With the emergence of the middle school movement in the 1960's, the philosophy of educating pre-adolescent students was changed dramatically (Eichhorn, 1966; Popper, 1967). Youngsters from age 10-15 were recognized as needing something different from a "junior" form of the high school experience or a continuation of what they had received as elementary school children (Blair & Burton, 1951; Loomis, 1958). Because the transitional phase from child to young adult is a major turning point, it brings with it adjustments unlike others previously faced (Turning Points). The purpose of the middle school movement was to create a school environment where pre-adolescent youngsters could explore their emerging adulthood while being supported and guided through the ups and downs they would inevitably experience (Alexandar, 1968; NASSP, 1985).

The middle school was designed around an understanding of the developmental needs of students ages 10-15 and the recognition that programs for middle grade students must take into account the varied developmental rates of physical, social, emotional, and intellectual characteristics (NMSA, 1982). During this period of human development, the ranges of "normal" growth (physically, socially, emotionally, and cognitively) are wider than at any other time. The spread in measured achievement also increases over elementary school. This broad developmental range leaves teachers facing, in a single class, students who resemble third graders, with classmates who are rapidly approaching adulthood. How does the "middle school" attempt to meet the needs of these students?

The organizational structure of the middle school focuses on the use of teaching teams and on creating "families" within the school so that students feel part of a supportive group. Attention to the social and emotional aspects of the students' development is a critical part of the middle school agenda and can be addressed

through advisee/advisor programs, counseling efforts, and attention to the development of self-esteem within the curriculum. The curriculum of the middle school attempts to balance hands-on, concrete, activity-centered learning experiences with thinking strategies and decision making opportunities. Development of the "whole child" is considered paramount with special attention to the physical and health needs of the ever changing pre-adolescent student. The following characteristics are identified with the middle school movement:

1. meeting the varied affective needs of students;
2. allowing each student to work at his/her own pace and level of learning;
3. using team teaching and team planning;
4. using exploratory curriculum in the classroom;
5. developing and using interdisciplinary curriculum;
6. using outcome-based assessment or mastery learning;
7. emphasizing thinking strategies and decision making within the curriculum;
8. allowing teacher/students relationships to be more intimate and providing students with "families" within the school;
9. having teachers serve as facilitators of learning rather than disseminators of knowledge;
10. extending learning beyond the textbook;

(Alexander & George, 1981)

The focus of the Gifted Education Policy Studies Program has been to examine the impact of school reform, in this case, the middle school movement on gifted learners. In looking at the history and goals of the middle school movement, there seems to be a strong congruence between the goals for middle schools and the goals for gifted education. Little collaboration, however, has existed between the two fields, and in some instances, the fields have appeared to work at cross purposes (Sicola, 1990; Tomlinson, 1992). This may be due, in large part, to the recent inclusion of heterogeneous grouping as a major theme in the middle school agenda (Coleman & Gallagher, 1992).

In recent years this new dimension, heterogeneous grouping of students, has received attention in the middle school movement (Oakes, 1985). The "de-tracking"

movement has focused on the need to eliminate the tracking of students into fixed instructional strata which may predispose some students to lowered expectations for achievement (Oakes & Lipton, 1990; 1992). This movement has been based on the results of research on ability grouping which indicates that for some students, those in the average and below average learning groups, tracking seems to have an adverse effect (Slavin, 1990). The focus on this research, however, has lead to a widespread push to eliminate *all* forms of ability grouping in spite of additional research findings which support the benefit of ability grouping practices with highly able and gifted students (Kulik & Kulik, 1991). The elimination of ability grouping for instruction has led, in some cases, to the reduction or elimination of services for gifted middle grade learners (Allan, 1991).

Earlier research conducted as part of the Gifted Education Policy Studies Program, explored attitudes about the education of middle grade gifted students by comparing survey responses of educators in the middle school movement to those in gifted education. A variety of issues related to the education of gifted students in the middle schools were examined in this survey (Coleman & Gallagher, 1992). The survey results indicated that there were substantial areas of agreement between the two groups, however, the issue which elicited the most polarized responses was the use of instructional grouping practices. Opposition, from advocates of gifted students, to the middle school movement, centered, in part, around the elimination of grouping practices and the ensuing reduction in services to meet the needs of gifted learners.

The study reported here is a follow-up to the initial survey. It was designed to see how middle schools, in practice, are meeting the needs of gifted middle grade students. The purpose of this study was to identify schools which were successfully blending the goals of the middle school movement with strong support and services for gifted students. In learning how these two educational initiatives could work in a mutually

supportive role, we hoped to encourage collaborative efforts designed to enhance the education of gifted middle grade students.

Procedure

The first challenge we faced was to locate middle schools which represented the best of the middle school philosophy combined with appropriate services for their gifted youngsters. We wanted to select schools located in urban, rural, and suburban settings. We also wanted to locate schools with a variety of service delivery models for their gifted students so that we could learn as much as possible, given the limited number of sites we were able to visit. The available resources allowed us to visit five schools.

Nominations

Nomination forms for potential schools were sent to board members of the National Middle Schools Association (NMSA), the Association for Supervision and Curriculum Development (ASCD), The Association for the Gifted (TAG), and the National Association for Gifted Children (NAGC). Key people in each of the 50 state departments of education were also sent nomination forms. State coordinators of gifted education were asked to make nominations in conjunction with their middle school colleagues. In all cases, the cover letter requested that nominations be distributed to individuals who would be knowledgeable about schools which might meet the criteria for the study.

Although we did not expect that each school would meet all of the criteria listed, we felt it was necessary to establish guidelines for school nominations. The following indicators that the needs of gifted learners were specifically included in the school's overall agenda were given. The presence of:

1. specific attention to the needs of gifted students in the schools stated within philosophy, goals, and objectives;
2. specific attention to curriculum "pacing" which shows differentiation for gifted learners, including some forms of individualization, curriculum compacting, flexible pacing, acceleration, and/or enrichment;

3. specific attention to curriculum content which is differentiated for gifted learners, including some forms of higher order thinking, interest based learning, independent study, mentoring, inter-disciplinary learning, seminar learning, and/or learning beyond the textbook;
4. attention to staff development which is designed to prepare educators to better meet the needs of gifted students. This may include introductions to the needs of gifted students as well as programs which address specific teaching strategies and materials for use with gifted students;
5. some form of program evaluation, either formal or informal, designed to show how successfully the needs of gifted students, and/or all students, are being met, and to provide guidance for future program decisions.

Selection of the Sites

We received 24 nominations from 12 different states. Although we realized that we did not have a complete list of schools which met our criteria, we felt we had an ample pool of candidates which qualified for the study. From this pool we screened out those nominations with grade configurations other than 6th, 7th, and 8th, the most typical middle school configuration. Two schools were dropped due to their grade configurations; three schools were dropped as they were still using the junior high school organization.

We then looked at whether the remaining schools met the criteria for nomination, and found that all did. The next part of the selection process involved follow up documentation of each school's success. Phone calls were made seeking specific information both from the school's personnel and from knowledgeable informants (e.g., advisors from the NMSA, or the state departments of education). We felt that this verification was essential to ensure that each of the schools selected would be an example of "best practices" in blending services for gifted students with the middle school model. When this process was completed we had 13 schools from which to select.

At this point, we began to look at school location and service delivery model. We considered different combinations of schools in order to get the most diverse grouping. Out of this process, we were able to select five schools, two urban, two suburban, and

one rural, which used a variety of gifted program models. All five sites agreed to participate in the study.

Site Visits

We scheduled the visits so that two days could be spent at each site. A team of 2-3 researchers visited each school. For consistency, one of the researchers visited all of the sites, and two other investigators participated in three visits each. During the visit, we sought a variety of information about how the school addressed the needs of gifted middle grade learners. This information was gathered in the context of how the school program was established and what the overall school program was like. We used several data gathering techniques to form as complete a picture of the school as possible.

Interviews with Key People. We interviewed key people who were involved in the establishment of the school as a middle school, and/or who were instrumental in shaping the school's services for gifted learners. An interview protocol was used to guide questions, but the interviews were allowed to develop naturally without moving mechanically from one question to another. The protocol served to remind the interviewer of topics not yet covered in the free ranging interview. At each location, the people interviewed differed depending on who the key players had been. In every case, we interviewed the principal, and the coordinator of the gifted program. Other persons interviewed included members of the central office staff, guidance and counseling personnel, lead teachers, and in some cases, parent/community advocates.

Focus Groups. Discussions were structured through a focus group protocol to elicit the perspectives of separate groups of teachers, parents, and students (Morgan, 1990). In each of these group discussions, we asked participants to tell us what the program was like, how they viewed its strengths and weaknesses, and what they would advise others who were interested in developing similar programs. The groups were

made up of 8-10 participants and the questions were used as a stimulus for discussion among members. Each focus group discussion lasted approximately 45 minutes.

Observations. In addition to the interviews and focus group discussions, we spent time observing in the classrooms to learn how the program was implemented. We observed in variety of class structures, subjects, and grade levels. The observers followed a format which allowed them to note various aspects of middle school programming and to note ways that gifted and talented students' needs were addressed. In most instances, we were able to discuss these observations with the teacher to see whether they had been satisfied with how the lesson had progressed. At some sites, we observed teacher planning sessions to get a sense of how this contributed to reaching the educational goals of the school.

Document Review. Beyond the information collected on-site, we used the information provided to us by schools in the form of reports, self-studies, handbooks, vitas, curriculum plans, evaluation reviews, and program guidelines to complete the school profiles.

Data Analysis

At the completion of each site visit, individuals on the visitation team compiled their own field notes reflecting what they had learned from the collection of observations, interviews, focus group sessions, etc. From these notes and visiting team discussions, a single profile of each school was developed.

This profile was sent back to the school for verification and comment. The schools then responded to the profile with minor corrections or adjustments and the profiles were revised from the input obtained from the sites. Individual profiles are presented as part of the results of this report. These profiles became central documents

from which to identify the key factors at each site that seemed to contribute to the school's success.

Factors that were identified as potentially important at individual sites included: leadership, commitment to gifted students, staff development, autonomy, availability of resources, attitudes within school, curriculum differentiation, affective program, teaming, written plans, and evaluation strategies (see definitions in Table 1). Each of these factors was further broken into components which looked at specific aspects of this area.

A four-level rating scale was then developed to rate these factors with regard to the influence they exerted at each of the school sites. The ratings were based on the following criteria:

A. factor was critical to the success of the school program. Without the presence of this factor, it would be doubtful that the program could succeed.
B. factor was important in shaping the school's success and in influencing the overall program.
C. factor had a moderate level of influence on the outcome of the program, but the role played by this factor was limited.
D. factor had an insignificant role, or no role, to play in the program's outcome.

Ratings were decided through staff consensus. During these discussions considerable time was taken to validate each of the ratings using field notes, school profiles and additional information. A cross-site analysis was then prepared through the development of a word table (Yin & White, 1984).

There was substantial agreement among the three visiting team members on the individual ratings and consensus was easily obtained in most instances. The major problem seemed to be when distinguishing between categories B (Important) and C (Moderately Important); there was some question about whether some factors were important or merely contributing to the outcome. Differences were reconciled by going back to original notes and sources.

Table 1

Potentially Influential Factors in Middle School Programs for Gifted Students

1. **Leadership:** could come from a variety of sources, central office, school site administration, teachers, and/or from outside advocates, the notion that some force existed that helped guide the development of programs and ensured that they were implemented
2. **Commitment to Gifted Students:** this was seen as either stemming from the central office or the school site, and involved a strong advocacy for gifted students with a willingness to invest specifically in their educational programming
3. **Staff Development:** encompassed both professional development activities in the middle school approach and those in the education of gifted students
4. **Autonomy:** related to the sense of independence in decision making and a feeling of being empowered to shape activities; we looked at this for both school site administrators in their buildings and teachers in their classrooms
5. **Availability of Resources:** dealt with material/physical, expertise/human, time, and community resources which the school could make use of in their programming
6. **Attitude Within the School:** the emotional climate within a school is difficult to define; however, it was easily perceived; we looked at the enthusiasm of students and teachers, the level of trust evidenced in communication patterns, and the overall commitment to the school
7. **Curriculum Differentiation:** was looked at as it related to meeting the needs of gifted learners, and several strategies were included (instructional grouping, mentor programs, interdisciplinary units, flexible pacing, enrichment, independent studies, advanced content, and thinking strategies)
8. **Affective Program:** strategies specifically designed to enhance the social and emotional development of students were identified; these included counseling, advisor/advisee, group work, and the establishment of "families" within the school
9. **Teaming:** referred to teachers working in interdisciplinary teams to plan for the needs of students assigned to them
10. **Written Plan:** looked for a written plan describing services for gifted students
11. **Evaluation:** this included both formal and informal attempts to asses the effectiveness of the services for gifted students

Individual Site Results

The individual profiles of each site are presented to share the richness of information which each site offers. They will be followed by the cross site analysis.

Brewster Middle School

Brewster Middle School was visited on December 2 - 3, 1991. The school is the middle school for Camp Lejeune Dependents' Schools and is located on the Camp Lejeune Marine Base at Jacksonville, NC. The student body is quite diverse reflecting the population on base with 20% of African-American students. The educational backgrounds of the families served by Brewster vary greatly, but all share their affiliation with the United States Marines or Navy. Being a dependents' school means that while the students are diverse in many ways, they may have some similarities not found in a typical public school population. The possible influences of the military structure, an emphasis on success, and the extended support for families cannot be underestimated in viewing this school.

Brewster was built in the 1960s and originally served as a junior high school prior to its 1984 transition into a middle school. The building houses "halls" where teams of students were assigned. The campus includes a large library, gymnasium, and computer/technology room. Other facilities for art, home economics, and wood shop were also available. Several examples of students' work were displayed in the halls and students seemed to take pride in their school's appearance.

Attributes of the Middle School at Brewster

Many of the current faculty were present during the transitional period and helped to shape the new "Brewster Middle School". The school was organized by teams; four at the sixth grade, three at seventh, and two at the eight grade levels. These teams of

approximately 65 to 110 students function as the major defining structure for both the teachers and the students. Each team had a name (e.g. Bears, Cats, etc.), a mascot, and a clear identity which distinguished them from other teams. These teams formed the bases for weekly intramural competitions. An afternoon intramural sports program was also available.

The teachers use team planning time to address students' affective needs, to plan interdisciplinary curriculum, to hold parent teacher conferences, and to handle school business. The team leader was responsible for desciminting information and coordinating team efforts. Teachers were elected to serve on a school improvement team to assist with school planning and to shape the direction the school would move. This organizational structure lead to clear and frequent communication about the schools mission and direction, with strong ownership felt by all for the outcomes of the school.

The students were also assigned to advisor/advisee groups within the team where their individual needs could be addressed. Strong emphasis on students' social, emotional, and physical development, in addition to their cognitive development, reflected the middle school philosophy.

Program for Gifted Students: Academically Gifted (AG)

The Brewster program for academically gifted students was part of a school systems commitment to the recognition and development of individual excellence. This climate seemed to be supported by the philosophy of the Marine Corps and permeated the entire school system's approach to education. The emphasis on working hard and maximizing potential lend themselves to strong support for programs targeting highly capable students. The AG program at Brewster had been in place for over two decades, and although its form had changed during the transition to the middle school the overall commitment to excellence was undiminished.

Student Identification. Students were formally identified as academically gifted (AG), according the North Carolina guidelines which focus on IQ, achievement scores, and grades. Most students formally identified as AG at Brewster had been identified in an earlier grade. In addition to the standard identification, teachers were able to nominate any student who they felt needed to be evaluated for the program; this acted as a safeguard for students who transfer in or who were missed in earlier identification efforts.

Structure of the AG Program. The program for AG students was embedded in the team structure of the school. One team at each grade level housed the identified gifted students, approximately a third of that team was made up of AG students, and the remaining two thirds ranged in abilities and needs. Although this arrangement could lead to the feeling of one "smart" team and then the "others", making one team seem more advantageous, this did not seem to be a major problem at Brewster. The quality of all the teams was high, and the emphasis was not on AG, but on the team. This meant that students really paid very little attention to who was gifted or not gifted. Many of the teachers responsible for the team with the AG students had taken additional classes in the needs of gifted youngsters.

Curriculum Differentiation. AG students were grouped for language arts and math instruction. The focus in these classes was on the addition of complexity and depth to the core curriculum. The math classes moved at a more rapid pace and opportunities for individualization in math were available for extremely able students. All teams emphasized interdisciplinary planning and teaching, and this added complexity to the content.

Many of the curriculum activities were exploratory. The textbook was referred to as a guide, but teachers indicated that they did not feel bound to the format or content. Activities were organized around themes and additional experiences such as field trips.

speakers, and assemblies to share student work were part of the schools overall approach to education; the AG students benefited from this as well.

The science classes were heterogeneously grouped. The "hands-on" nature of these classes allowed teachers to challenge and stimulate the students. Teachers often used pre-testing to assess students' mastery of material prior to its formal introduction. Through this process they could better adjust the curriculum to meet the students needs. The science program also coordinated with the health and physical education departments for a cross-disciplinary unit each year.

Social studies classes were also grouped heterogeneously. Teachers indicated that they did several projects and that students could select the topics and formats which best suited their abilities and learning styles. The social studies teachers also were using cooperative learning groups in some of their classes and felt that the students enjoyed the time to talk with each other about the information being studied.

One aspect of the curriculum which was unusual was the use of technology. Every AG student in the school completed a "project" with a cross-grade-level group at some point in the school year. These projects were related to areas of student curriculum interest but often tied into an interdisciplinary unit under study. The media/technology coordinator acted as the facilitator for these groups. The students used very sophisticated computer graphics programs and CD ROM disks to create computer-assisted learning programs. The technology teacher indicated that all students were challenged at an appropriate level and that he taught different skills to the students based on their capabilities. Because the projects were done by cross-grade-level groups, students' interest and abilities could be matched more easily. These seemed to be a highlight in the students' eyes and they looked forward to their turn to work on a project.

Points of View on Brewster

The perspectives of the administration, faculty, parents, and students give us a feeling for the school as a whole and for the AG program as a part of the school.

Principal. The principal's leadership style was centered on consensus building with input from all. This did not in any way diminish her responsibility for the final decision making, but it did ensure that ownership for the outcomes of these decisions was shared. She saw her role primarily as creating teams which would function well, assisting the teams to work harmoniously, and providing extended learning opportunities to assist teachers with their own professional growth. The sense we got was that she knew exactly what was happening on each team, and that she was prepared and able to direct, assist, and encourage when needed.

The assistant principal was also a critical member of the administration. He had been a teacher at Brewster during the transition years as the school became a middle school. At that time he was one of the "resisters" who felt that the changes were not needed. When asked what had converted him into an advocate, he said that he had waited, watched, and seen how the changes worked. An example was shared with us this way: one of the youngsters we met was an extremely able young man whose social skills were not strong. The vice principal pointed out that "In the old junior high, this student would have spent most of his time jammed into his locker... but here, he is a member of the Bears." Both the principal and vice principal were instructional leaders and their classroom experience and expertise was respected by the teachers.

Teachers. Enthusiasm was the most impressive quality which the teachers displayed. They seemed to love teaching and to actively seek out ways to improve their teaching. The teams, which organized them for professional purposes, were also groups of friends and several examples of this supportive relationship were given. The competence of the teachers in their content areas allowed them to try new things without

fear and their participation in the school decision making empowered them. All of this created an environment where professional excellence was every bit as important as student excellence.

Parents. The parents we met were very supportive of the school's efforts. It was clear that these families valued education, respected teachers, and worked to instill this in their children. The strength of these attitudes may, again, result from their affiliation with the Marines. The parents trusted the school to have their child's best interest at heart and indicated that their role was to support the school's efforts in any way possible.

AG Students. In talking with the AG students, it was very clear that they did not themselves as a group of "gifted" students. Their primary alliance and identity was as a member of a team, "Oh... I'm a Bear", was the response to questions about their role in the school. This seem to be an important distinction as it helped students feel a sense of belonging to a wider, and more socially acceptable group.

The students felt that their curriculum was challenging and that their teachers worked hard to meet their needs. They indicated that if they ever felt something should be changed, they could talk with their teachers; "They [the teachers] will really listen to you and will try to help". In some cases, the students indicated that although they took pre-tests, and made 100s they still had to complete work which was repetitive... this was the exception, however, and not the rule.

AG Program Evaluation

The evaluation of the AG program was completed in the context of the overall school improvement plan. "We are always in the first year of a five year plan" was the way it was stated! The presence of written outcomes for each grade level in the core

curriculum allowed teachers to feel secure in the content to be taught. This also helped to guide their use of differentiated planning for the gifted students.

The school completes an annual assessment each year and although the AG program is not mentioned specifically, the teams all participate in reflection and goal setting for the next year. This again emphasized the essential role of the team in the school's organization.

Future Direction for Brewster

Being in the first year of a five year plan means that there are always program areas which are improving. One of the areas which was being examined and planned for was changing the teacher evaluation procedures to an individualized goal setting process for those teachers who had demonstrated proficiency on the basic teacher assessments required by North Carolina. More teachers in the school were electing to pursue the certification program for academically gifted so they could incorporate these techniques into their classes. An additional focus was on improving the teams and more opportunities were planned to work on group dynamics skills needed to enhance teacher teaming.

Summary

Although the teams were the essential building blocks of the school, Brewster was much more then the sum of these parts. The careful articulation of the curriculum, school goals, professional development, and shared decision making created an environment which not only supported excellence but required it. This combined with the obvious enthusiasm for the teaching learning process meant that not only were expectations high, but that reaching them was fun!

Wilson Middle School

Wilson Middle School was visited on May 12 - 13, 1993. It is located in downtown Tulsa in an older neighborhood. The school is a "partner" magnet and so draws students from several areas. Several Tulsa schools are full magnets, with most of their students attending because of the magnet program; Wilson, however, accepts only 50 magnet students to participate in a foreign language program. The student body (appropriately 675) is quite diverse with 6.5% American Indian, 4% Hispanic, 2% African American, and 2.5% Asian. The students also represent a wide economic span ranging from affluence to poverty. There were 500 applicants for the fifty magnet slots and the students were selected according to achievement and performance indicators.

The school building itself dated back to the 1930s and was well maintained but also well used. In addition to the classrooms, the two stories housed a large library, a music room, an art room, a computer lab, science labs, and a gymnasium. There was no particular classroom for gifted and talented students, so they met in the computer lab, the art room, or the library depending on the time and focus of the lesson. This did not seem to create a problem, however, because much of the GT program revolved around the use of the computers.

Attributes of the Middle School at Wilson

Many of the teachers we met at Wilson had participated in planning the transition from a junior high to a middle school model. The strongest marker of this change was the emphasis on the affective needs of students. The presence of "Impact" teachers with special training in assisting students with social and emotional needs, coupled with the special evening and weekend counseling events all come into being as part of the middle school transition. Two counselors participated in the overall program. Wilson teachers meet frequently in grade level teams to plan for student needs and to design curriculum.

The use of community resources through the mentorship program and the "adopt a school" program also played an important role in the transition of the middle school program. This inclusion of parents and community members in the planning is part of the effort to meet the students' developmental needs.

Program for Gifted Students: Gifted and Talented (GT).

The GT program was developed by the single GT teacher at the school. Although the program was similar in structure to a "pull-out" model, its particular focus was unique. In order to minimize the interruption to the students' regular class schedule, the GT teacher designed a system which rotated the students GT period so that they would not miss the same academic class each week. The schedule was done by computer on a daily basis. The home room teacher gave the GT students their pull-out time and meeting room for that day. In addition to their formally scheduled GT time, the students could "drop-in" any time they had completed their regular class work to work independently.

The other teachers seemed to like this arrangement as students only missed their class once each week. The students liked it because they enjoyed the change, and the GT teacher felt that she could pull in students according to need, interest, and project topic. The students indicated that if they had a test in the class they were to be pulled from, or if they did not understand the content they usually stayed at class, and their GT time was rescheduled.

The classroom teachers felt the GT experiences were very important for the students, and that the GT teacher was "invaluable" to them and to the school because of her knowledge and experience. Because of the high level of confidence in the GT program the cooperative effort required from the classroom teachers was there, and the support for the flexible scheduling was strong.

Student Identification. The formal identification process for GT was quite strict. The top 3% of students on achievement and IQ measures were used to formally identify students for the program. The schools philosophy, however was that no talent should lie idle, and the faculty worked to instill a "motivation for excellence" in all students. This also meant that students who did not meet the formal criteria for GT but who showed a need for the services, were included in the GT program. Special consideration of need was given to students from economically disadvantaged backgrounds, and also to students with disabilities. Of the 675 students at Wilson, 72 were formally identified as GT, and an additional 20 or more were included for special services because of their demonstrated talent and/or performance.

Structure of the GT Program. The program for gifted students was more than just the pull-out time during which the students worked with the GT teacher. The core classes for all students were designed to meet individual needs whenever possible and to encourage students to work at a challenging level and pace. As a language magnet school, the students were able to select from French, German, Spanish, and Japanese. The math program offered opportunities for rapid advancement at an individual rate and some students had progressed through calculus by the eighth grade. The music and arts programs also supported talent development.

The attention to the affective development of the students was also a large part of the schools focus and several strategies were in place to address these needs. The school had also developed a mentorship and volunteer program which was outstanding and this contributed to talent development. The school was also part of the "adopt a school" program and had been adopted by a local hospital. Overall, the GT program was infused into the fabric of the school and the pull-out component was only one area of services offered.

During the time that the students worked with the GT teacher the focus was two fold: a) individualized computer-assisted-learning plans, and b) team academic competitions. The GT teacher had an impressive collection of computer software reflecting her special interest in this topic which allowed her to individualize student learning and motivation. The Tulsa central office also provided support to Wilson in this area. The individualized computer plans were designed to meet students interests, and abilities but also to extend the core curriculum when needed. These were often developed collaboratively by the GT teacher, the core class teacher, and the student.

For one student whose talent and passion was music, an individualized plan was created to allow her to study music theory. She worked with the music instructor, the GT teacher, and with a special software package on music theory and analysis. Another student was highly interested in math and the program designed for him was a self-paced math program with an emphasis on problem solving. The range of plans was wide and each was configured to the students' needs.

The students were able to work under the guidance of the GT teacher, but they were also able to work on their own for much of the time. This allowed them to drop-in during times when they had completed their regular class assignments. The core class teachers felt comfortable with this arrangement and indicated that it allowed them time with students who needed more assistance while allowing the GT students to continue with their individual growth.

The second aspect of the GT program was the involvement of students in academic competitions. The students selected the areas and the teams which they wished to pursue, and not all students participated in competitions. The competitions included: Math Counts; science competitions; spelling bees; geography bees; Future Problem Solving; Odyssey of the Mind; quiz bowls; and a variety of regional, state, and

national competitions. The students at Wilson were quite successful in these activities, and a full trophy case attested to their ability to win.

The core curriculum teacher assisted with coaching the students and mentors also played a role in supporting the teams. The "adopt a school" business partner, the hospital, provided transportation to the teams; donated money for ribbons, and awards for "in house" competitions; and they were often asked to judge the students' products.

Differentiation in the Curriculum. The students were grouped for instruction in math, foreign language, and language arts. The math program offered was quite intense with most GT students completing algebra by the eighth grade and some completing calculus. The math instructors believed firmly in encouraging students to work at their optimum level and rate of challenge and no student was artificially held back to "keep them in sequence" with the "grade level" curriculum. The opportunities to participate in several math competitions also enhanced the math program.

Articulation with elementary feeder schools to identify students with particular math talents helped provide a smooth transition into Wilson's program. This communication continued, with the high school, to ensure that opportunities for advanced math experiences continued.

Because of the magnet school emphasis, the foreign language program was also very strong and students were grouped according to their ability and mastery level. All sixth graders who qualified took an exploratory language class where they learned about all four languages offered (French, Spanish, German, and Japanese) and also studied the culture of each country.

Sixth graders who did not meet Wilson's foreign language criteria (grades, attitude, and achievement in reading and language), were given opportunities to take exploratory classes in computers, art, speech, technical education, and/or drama.

In the seventh grade students selected a primary language of study (in some cases students selected two). In the eight grade students could either continue with their original selection or try a different language. A mentor provided a conversational French class in addition to the regular French classes offered. The language classes were also aligned with the high school language curriculum and students could move directly into advanced high school classes if they were qualified.

The science program at the sixth grade included a "hands-on" experimental program which was run by parents and volunteers. This program worked with small groups of students to extend the class experiences and the volunteers were specially trained to guide the students in the discovery/experimental process. At the time of our visit, there were more than ten volunteers in this program who came in once a week to teach science activities. The program was coordinated by a parent whose own child was a science buff.

The seventh and eighth grade science programs were undergoing some changes and during the time of our visit, they were exploring ways to provide more challenge and stimulation. The availability of the science competitions did provide an outlet for students whose main interest was science. The hospital partnership also allowed students opportunities of field trips, and enrichment experiences in the health science areas.

The music and art programs were well developed and students progressed at their own rates as well as participating in group choral, orchestra, and band activities. The mentorship program was also evident here with the development of a jazz band sponsored and led by a community member who happened to be a famous jazz musician.

The affective program of the school played a strong role in the recognition and development of talent. This took several forms. The original conception of the mentorship program was as a vehicle to build the self concepts of students who were

experiencing difficulties. This remained an important part of the mentors role. Many teachers in the school had participated in a seminar program to assist teachers with the counseling/support role and these teachers, known as "Impact teachers" were available for daily advisement and crisis management. The Impact teachers had a special sign of their door identifying them and students seemed to know that this meant that these teachers were available to help.

The counselor was also very active in supporting the students. There were support groups which met before school to assist students who were experiencing family, or personal difficulties. Twice a year special intensive sessions were held. These intensive sessions were six hours, usually on a Friday after school (3-9 p.m.) and involved 70-80 students. The students worked in small groups to produce a skit dealing with some aspect of human development and these skits were share at the end of the evening. Students could request to participate, and teachers could recommend that students participate if they felt a need. The counselor also made referrals for students and families who required more intense support and counseling.

Points of View on Wilson

The perspectives of the administration, faculty, parents, and students give us a feeling for the school as a whole and for the GT program as it fits in with the school.

Principal. The principal expressed his philosophy of education as helping all children reach their potential. He supported the GT program and indicated that the GT instructor's knowledge and abilities helped the whole school. He saw his role as one of support and facilitation and felt that his staff was capable and competent. The parents were welcome partners in the school and were invited to participate in daily activities. The principal and vice principal worked together as a team sharing responsibilities. In working with the central office, the principal represented the consensus of his staff and

indicated that his faculty's needs were a top priority. His open door policy helped to build trust and encouraged teacher input in the decision making process.

Faculty. The majority of the faculty had been teaching for many years, with the average tenure being thirteen years. The teachers had confidence in themselves and a strong commitment to their students. The use of grade level team planning had started with the middle school model in 1989. The sixth grade teachers felt that this was an essential vehicle to assure that students needs were met during the transition from elementary school. The seventh and eighth grade teachers expressed a desire for some departmental meetings (e.g., all math teachers) to address curriculum scope and sequence and felt that departmental planning had been lost in the cross disciplinary teaming. At the time of our visit, teachers had two planning periods per day and used them for group and individual planning. We were told that this would be changed to one period in the coming year, and the teachers were looking at ways to meet all their planning needs.

The teachers expressed a "no nonsense" approach to the curriculum and to their high expectations of the students. They shared the belief that "all students can learn," and that all are expected to work up to their potential. The word we heard from several people was "contagious"; that the enthusiasm for excellence was catching. This was noted by students and parents as well. This strong emphasis on high expectations provided a solid foundation for student achievement. The teachers viewed the GT program, and in particular the GT teacher, as an invaluable resource to help them reach their goal. The GT teacher provided materials, information, and support which allowed the core curriculum teachers to individualize appropriately. The teachers also viewed their colleagues as more then just work-mates. The term "family" was used often and the teachers shared several examples of mutual support which went beyond the school house.

Parents. The parents we met were knowledgeable about the school and many had been directly involved with school activities. The parents indicated that Wilson's open door policy and "welcoming feeling" put them at ease. They also felt that their concerns were listened to and that the teachers and administration were responsive. Overall they were pleased with the program, both from a curriculum and social perspective. They had some concerns about one of the academic programs, but indicated that this was in the process of being changed and that they were confident that improvements would be made.

GT Students. The students were enthusiastic about their educational experiences. They respected their teachers and were very fond of them. They expressed a special closeness to the GT teacher. When we asked them if is was "OK" to be smart at Wilson, they seemed surprised and indicated that it was expected! They said that they did get some teasing from other students, but, for the most part, students looked up to them. They described their educational experiences as challenging and rewarding and said, "We need to work hard." Several of the students we interviewed were experiencing serious family related difficulties. For these students, success in school was a coping strategy. They indicated that their teachers put a lot of faith in them and that they did not want to let them down.

GT Program Evaluation

No formal evaluation of the effectiveness of the GT program has been conducted; however, the communication between the GT teacher, students, and other faculty focused on ways to continuously improve the services for GT students. Parents and community members also seemed to have substantial input into program decisions and this "open door" approach allowed for ongoing monitoring of program success.

Future Directions for Wilson

Some of the changes which were anticipated in the coming year were not under the direct control of the school. One example of this was a new grouping policy which Tulsa had adopted. This policy mandated more heterogeneous grouping for students in the core curriculum areas. The principal and staff at Wilson seemed to feel that this policy would make it difficult for them to reach the students and to individualize for them in the ways they were accustom to. They also felt that the current success rate they were experiencing (as indicated, in part, by substantially higher test scores then other school in the system) would be undermined if the range of student needs in each class was widened.

The faculty indicated a wish to explore alternating planning time (they would have only one period a day in the coming year) between team, individual, and departmental efforts. The teachers were looking for a balance between student needs and curriculum planning. One of the areas that we did not see emphasized was the use of interdisciplinary curriculum. The teachers gave us some examples of cross-content activities such as writing experiences in the math classes and using literature in social studies, but they had not really moved into the interdisciplinary curriculum model. Some expressed an interest in pursuing this direction in the coming year.

Summary

The program at Wilson school was strong and the emphasis on excellence permeated the environment. The program had developed during a time of severe budget cut backs and yet was able to pull in substantial support from outside with a mentorship program, and an adopt a school business partner. The parents were also seen as active partners in the educational process and many were involved at the school. The teachers and principal took a firm approach to student outcomes and set

high expectations for all. The commitment to achievement provided a foundation for the GT program which was in turn assisted by the core curriculum teachers.

Western Middle School

Western, located in a rural county of North Carolina, was visited on April 30 and May 1, 1992. The population reflects that of the community, approximately 15% African American and a mixture of economic levels ranging from poverty to upper middle class. The educational level of parents was somewhat higher than might be expected for a rural school due to the presence of a small college in the community. At the time of our visit, approximately 15% of the 650 students at Western had been identified as academically gifted.

The school was built in 1978 and was designed to be a middle school. The central area of the building housed the offices, cafeteria, library, and specialty rooms, while the classrooms are set off in wings. Each wing, or, "house," was designated for a grade level. In addition to the classrooms, each house contained a teacher workroom, student and teacher restrooms, and an art/project area. The majority of the building was carpeted, and this helped to reduce the noise.

The school had a cheerful, enthusiastic feeling and signs of student successes were everywhere. A large trophy case in the front hall displayed student honors of all kinds. The facilities were well maintained, and there seemed to be a great deal of pride placed on the school and what it represented. This pride permeated the building, the pervading notion being, "of course we're great...we're from Western !!".

Attributes of the Middle School at Western

Western was one of the first schools to make the transition to the middle school model in the 1970s. The building was designed to house grade level "families" of

students. The school was organized around grade level teams for teacher planning, and had homeroom intramural teams which enhanced the students' sense of belonging. The advisee-advisor program was designed around "Chat" classes which were small groupings of students (13-14) that met daily with a faculty or staff member. Teachers had developed a specific curriculum for these classes which focused on the development of self-esteem. The teachers were accustomed to developing interdisciplinary curricula and to working with colleagues on decisions which ranged from school events to the hiring of new faculty. Most of the faculty at Western were actively involved in the reshaping of the school program during its transition to a middle school.

Program for Gifted Students: Academically Gifted (AG) Program

The AG program was not separated from the overall school program. The needs of AG students were integrated throughout their day in the core subjects. The students were identified for advanced math, language arts, or both. Identified students were placed in the advanced language arts/social studies block and/or the advanced math class. The nature of this placement also meant that these students took their science classes together as well. Their "Chat" (advisee-advisor) classes and electives were taken in mixed ability classes.

The use of interdisciplinary units of study was primarily organized around events which took place at each grade level. While we were there, the 8th grade was in their final days of preparation for their trip to the Outer Banks. This trip had been the focus of work for the two months leading up to it, with activities coordinated in each of the academic areas. Other such events were trips to the zoo, North Carolina's famous people project, and a special Christmas Carol production. These events were planned by the teacher teams for the entire grade, and most students participated. Although some students were restricted from attending for disciplinary reasons, no students were

kept from participating because of financial need. Parents who could afford it paid for their child's participation, and teachers, parents, community, and local business work together to provide for students who could not afford the costs.

The affective needs of students were considered a top priority, and several teachers indicated that this was part of their focus each day. The teacher teams reviewed student needs and developed plans to increase self esteem during planning time. The Guidance Counselor did as much as she could to address the social and emotional needs of the students given a variety of other responsibilities. She also referred students and their families to community based support programs when needed.

The advisor-advisee program was fairly new and was organized around "Chat" classes. Each adult had a group of 13-14 randomly selected students. The purpose of Chat was to establish a less formal relationship with students where they could share their feelings and hopefully have an adult who they could trust in times of need. Chat got mixed reviews from both the teachers and the students. Its success seemed to vary. The goals of Chat seemed to have been reached more informally, through the natural bonding of students and teachers. The students indicated that they had teachers of whom they were especially fond, and that they felt cared about them. With the AG students, this individual was often the AG teacher who the students felt "really understood them".

Several electives were offered including band, choral music, home economics, wood shop, French/Spanish, and computers. Students also participated in an intramural program with teams formed by homerooms. The homeroom was also the language arts/social studies block class, which meant that the identified AG students formed an intramural team for competitions. The AG students indicated that this was a

source of pride and acceptance as their team was often a winner in the sports arena--the myth about the "nerd" was somewhat debunked.

Student Identification. Western Middle School followed the NC state identification guidelines in identifying students as academically gifted. NC guidelines use IQ measures, achievement scores, and grades in the identification process. The formula used to select students allows for 110 points (50 pts. each for IQ and achievement, and 10 pts. for grades). Students must receive a total of 98 pts., or higher, to be identified according to state guidelines. At Western, identification for the gifted program was done according to content area, strength in language arts, and/or math. The differentiation provided for students depended on the area(s) in which they qualified. The advanced (AG) classes, however, were also open to students who were high achieving but who did not meet the state cut-off for AG identification.

Structure of the AG Program. The AG program focused on placement of students in instructional classes for advanced language art/social studies blocks, and, or advanced math classes. The language arts/social studies block also functioned as the homeroom and intermural teams. This allowed the AG students to share both academic and non-academic activities. The Chat program and electives are taken in mixed ability classes.

Curriculum Differentiation. Within the language arts/social studies, and math classes, the teachers focused on accelerating the pace of the material presented, exploring the content in more depth, and on research skills such as gathering and refining information from a variety of sources. The Group Education Plan (GEP), which is required by North Carolina for all identified AG students, focused on the continued development of thinking skills, problem solving strategies, decision making, and creativity. The teachers said that they worked on these areas within their curriculum and through the extended projects which the students completed.

The science classes were also determined by the schedule and thus the AG students formed a cluster in these classes as well. The school curriculum was very much "hands on" and activity oriented, and the science classes followed this model. The science labs were fully equipped, and many of the special events, such as the trip to the Outer Banks, had a special science emphasis.

Points of View on Western

The perspectives of the administration, faculty, parents, and students give us a feeling for the school as a whole, and for how the AG program blends into the school.

Administration. The current principal of four years was originally a teacher in the school when it first became a "middle school" in 1978. The early days of becoming a middle school involved a three year planning period with teachers, administrators, and parents exploring the philosophy and developing the plan. This planning built a solid base of support for the middle school and laid the foundation for the success of Western's program.

The goal of the principal was to give his teachers enough support and freedom to allow them to do their best. He felt that the most valuable asset of the school was its faculty and that they should determine their curriculum and classes. A leadership team made up of one teacher from each grade level, the administration, and a representative from the specialty teachers, met weekly to help chart the course for the school. When new staff was hired, a committee of teachers formed part of the decision making team. The faculty were active participants in shaping the school's future. The faculty repaid this high degree of autonomy and involvement by working hard and doing their best.

Teachers. The teachers indicated that they counted on each other for more than just team planning. Most of the teachers have been at Western for 13-14 years, and the friendships they have developed extend well beyond the school doors. The teachers

had participated in extensive staff development both on the middle school model and on meeting the needs of gifted children. They were highly qualified and experienced and, by-and-large, the school seemed to "run itself".

The teachers indicated that the high level of autonomy they were given was sometimes a mixed blessing. When difficulties occurred on a team, or when a colleague was not working up to par, these problems were expected to be handled within the team. This had been hard, in some cases, where the teachers felt uncomfortable trying to modify the behavior of an "equal." Other than this, teachers indicated that Western was the best place to teach and that they loved their work. This showed in the way they taught and related to the students.

Parents. The parents we interviewed were very supportive of Western. They felt that the school personnel had their child's interest at heart and that the overall program was strong. The one area which they expressed a desire for some changes was with the math curriculum. The wish was for greater freedom for acceleration in the math program, and for an increased use of technology. One of the parents indicated that his son had been identified for the AG program, but as the only African American male in the program, the pressure had been too great and he had elected not to participate. This was a concern which the school had begun to address. The parents also felt that they would like to be more involved in the school, and that while they were welcomed and felt listened to, they sometimes wondered how many of their concerns were really addressed. However, this did not seem to diminish their basic belief that the school was doing a "fine job."

AG Students. The students radiated confidence and self assurance. "We are the future," they said. They felt that their hard work was certainly going to pay off in high school, college, and then in the job market. They felt challenged by the curriculum and supported by their teachers. When asked if it was "OK" to be smart at Western, they

responded with a resounding "yes". The teasing they experienced was not "fierce," and the fact that their intramural teams did well balanced off the peer pressure. The AG students also felt that it was important to have other students in their classes who were motivated to do well.

GT Program Evaluation

There was no formal assessment of the AG program at Western Middle School. The AG teachers indicated that they met with central office administrators on occasion and reviewed program goals. The primary sense seemed to be that you could tell the program was working well because there were few complaints and difficulties.

Future Directions at Western

The commitment to gifted students within the school was strong. The program will continue to be a part of the overall school agenda. The school itself had so much forward momentum that it seemed to be sailing ahead. The areas which were being planned for included an upgrading of the school's computer capacity, and looking at the Chat program to strengthen its impact.

Summary

Western became a middle school through careful planning and extensive staff development. They maintained their commitment to gifted children as part of their commitment to all students. Most of the staff had been at Western a long time and brought expertise and experience to the school. A sense of enthusiasm permeated Western. The students believed that they attend the best school, the principal believed that he has the best staff, the teachers are committed to making it work...and it does.

Burbank Middle School

Burbank, visited May 18-19, 1992, is located in downtown Detroit in a neighborhood which could be described as "working class". The student body, 750, is representative of the community demographics with strong cultural diversity. Caucasian students are in the minority, with over 75% of the student body coming from Hispanic, African American, and Asian families. The school was originally built as an elementary school in the 1930s and was undergoing major renovations at the time of our visit.

Because the school was originally built as an elementary school the facility did not have adequate science labs, gymnasiums, wood-shop, home economics room, lunch room, and auditorium space. The library, which was closed for inventory at the time of our visit, was housed in two former classrooms. The reconstruction of the building and the addition of needed facilities was to be completed by fall of 1992. In spite of the major construction going on in parts of the school, the building was clean and orderly. The students seemed to know what was expected of them and to move through the halls in a purposeful, cheerful manner.

The overall impression of the physical plant was that although the "basic" amenities associated with a middle school were under construction, the teachers and students were not "marking time" waiting for learning to take place. The school was active, orderly, and smiles were seen on the faces of most students and faculty.

Attributes of the Middle School at Burbank

Burbank was in the process of moving toward a middle school model at the time of our visit. Teachers had participated in staff development on the middle school philosophy and were beginning to engage in team planning. The faculty responsible for the gifted program were acting as leaders in the transition to the middle school and several were team leaders for their grade group. Burbank's focus on high expectation

for students, with careful attention to supporting students emotionally, are indicators of the middle school transition. The sixth grade team has several strategies to ensure a successful transition for incoming students and safeguards are in place for students who experience difficulty adjusting to the new environment.

Program for Gifted Students: Achievement Plus (A+)

The A+ program was developed by a team of teachers from Burbank who were interested in creating an academic program to challenge their brightest students. This team was led by the principal, and received guidance from the district coordinator of gifted education. The members of the team attended classes to learn about meeting the needs of gifted students and then created a program which fit with the schools goals. This initial team also provides the instruction to the A+ students and has acted as a catalyst to help other staff members create a challenging academic environment. At the time of the visit the program had been in place for two years.

Student Identification. Students were identified for the A+ program at the end of the sixth grade. Although sixth graders were not identified for the gifted program, they were placed in instructional-level classes through a careful evaluation of cognitive, social, and emotional profiles. This process was set up by the Detroit School System for all sixth grade students to assure a smooth transition into the middle school. In addition to using this information to assign students for instruction, the information was used to identify students who might have difficulty making the transition. Students who were identified as possibly experiencing difficulty in making the transition were more carefully evaluated and an Individual Learning Plan (ILP) was developed for them. The guidance counselor was alerted to their special needs and provided additional support. We learned that this sixth grade transition program would probably be cut due to budget constraints in the Detroit Public Schools, but the principal of Burbank remained committed to continue as much of the program as possible at the school-level.

The instructional grouping and intense teaching seems to be paying off in student achievement. The entering sixth grade class placed into two low, two middle, and two high-level instructional groups. The same class on entering the seventh grade had one low, two middle, and three high-level groups (one of which was the A+ class). This steady increase in achievement was attributed to the school goal of meeting the child where she/he was academically and carrying him/her forward from that point.

During the sixth grade student performance is monitored to ensure that appropriate challenge levels are reached. Teachers met to discuss student needs and moved students to more challenging classes when appropriate. The emphasis, however was on adjustment to the Middle School. At the end of the sixth grade nominations were taken from sixth grade teachers, parents, the principal, peers, and from the students themselves. A screening of all student files to identify students with a grade point average of 3.0 or higher was also done to ensure that no students were missed. A placement committee (composed of the A+ teachers and principal) reviewed each student's grades, citizenship score, attendance record, achievement scores, a teacher questionnaire, and a parent questionnaire to identify the "top" 35 students for the A+ class, a waiting list of alternate students was also selected. The teachers indicated that this process was difficult but they felt it was fair. Students perceive the program as worth working for, in part because of the strict requirements for inclusion.

Structure of the A+ Program. The program is largely self-contained with students in A+ for their language arts block, and their math classes. Foreign language and social studies classes combine A+ students with high achieving students who are not formally identified. A+ students could select electives including band, wood-shop, and chorus. These courses must fit into their A+ schedule. However, these classes are not leveled by ability. In addition to the electives, A+ students have physical education and health within the regular education program.

Curriculum Differentiation. In A+ classes the pace of learning was faster, the level of abstraction was increased, and the content was more directed by student choice. The language arts block focused on literature, and writing through the use of units built around themes; basal texts were not used. The involvement of the Attic Theater Educational Outreach Program in the language arts curriculum led to the special inclusion of drama. The Attic Theater is a professional theater company with an educational extension program. During the months prior to our visit the group had spent five weeks at Burbank working with students and teachers. As part of this work the A+ students teamed with the company as the main drama class. Each year one class was given this opportunity, and our visit coincided with the A+ language arts group working with the theater company.

The math curriculum was fast paced and interactive. Enrichment activities were presented and the students were involved with academic competitions. During our visit we observed students engaged in a lesson on ratio. This took place in the last period of the day and yet the students eagerly participated in the class activities. The math textbook was used as the base for the class, however the teacher provided many extended opportunities for interactive learning. Calculators were used for some math activities. Computers were not available to either the teachers or students (the school had only five computers).

Science classes used the Detroit Area Pre-College Engineering Program (DAPCEP) curriculum which engaged students in hands-on problem solving and experimentation. During the time we were visiting we observed students building tooth pick bridges, of their own design, to determine how much weight each design could sustain. Students' science projects, which had been completed the week before, were displayed around the room. These activities were all taking place in a regular classroom facility. The school did not have science labs, per se; in the room equipped with science

counters, there were no stools for the students. All of the materials with which the students worked came from home.

The social studies class involved students in projects and independent research. Students had the opportunity to select topics and form small groups to complete reports and products. During our visit we observed students creating three dimensional battle maps, complete with soldiers, depicting famous battles of the Civil War. The students showed us pictures of a play which they had written and produced on slavery and the freedom train. In all of their work the students were encouraged to go beyond the textbook and to explore historical events from many perspectives. The textbook was used as a reference point, and not as the course syllabus.

Points of View on Burbank

The perspectives of the administration, faculty, parents, and students give us a feeling for the school as a whole, and the A+ program as it fits in with the school.

Administration. The school administration was organized with a principal, vice principal, unit heads, and team leaders (elected by their faculty teams). The principal of Burbank was in his fourth year and it has been during this time that the school had moved from a junior high to a middle school philosophical and organizational approach. The principal was also instrumental in the creation of the A+ program.

The principal referred to himself as a teacher, and he took an active role in setting the curriculum agenda for the school. He spent much of his time in the classrooms observing instructional practices, and providing guidance for faculty improvement. Acting as a catalyst, he provided direction while allowing the faculty freedom to develop their individual classroom practices. The staff indicated that they felt comfortable with this relationship and that, although there were high expectations, there was also active

support to achieve these goals. The faculty frequently brought their ideas and difficulties to the principal and felt they had "easy" access to his office when needed.

The principal expressed his mission as providing a balance between curriculum and discipline to create an environment where students needs could be met. This focus on the students permeated his responses to our questions and the discussions on school goals. Comments like, "We are here for the students, not the convenience of the teachers," and "The bottom line is meeting the students where they are while providing appropriate challenges," reflected the student-centered philosophy of the principal.

Faculty. The faculty took the student-centered lead from the principal. The A+ faculty in particular expressed their pleasure in teaching students who were ready to learn and whose motivation was intrinsic. They felt that the A+ program was theirs, they designed it, they taught it, and they monitored its success. This ownership led to a strong commitment to program goals. The A+ faculty also taught regular classes and indicated that the methods and high expectations used with their A+ students had spilled over to their other classes as well. They felt that this ripple effect had raised the standards for the entire student body.

Parents. We were able to meet with several parents for an informal discussion. These parents expressed their concern for, and commitment to, their children's educational success. However, only one of them had taken an active role in school support in the past, and for some this was their first visit to the school. Burbank had a Parents Association, and one of the mothers we met with was the president of the organization. The meetings were held during the day and most of the parents were working so they were unable to attend. Interestingly, the discussion ended with a commitment from the parents to get more involved in the school.

The comments of these parents indicated a strong sense of values for achievement and education..."I may not be able to give my daughter much in the

material sense, but she knows we love and support her, and that we expect her to do well," typified the feelings of the group. They referred to Burbank as a "safety zone" where they felt their children were sheltered and challenged. They spoke highly of the teachers; the only criticism was when a teacher underestimated or undervalued their child's ability and so "sold them short".

A+ Students. The students (7th, and 8th graders) indicated unanimous support for the A+ program and for Burbank. They said that the challenges made them feel confident and competent, and that although it was difficult, they had enough support from their teachers to make it. Comments like "it's really hard", "it's fun", "they work you to death", "we love A+", and "they [the teachers] won't let you fail" were made by all.

One student shared a story about how he had encountered difficulty in his math class and thought he would just quit A+. His teacher, however, refused to let him do this. The student said "they really care about you here, I mean if you are getting yourself into trouble they will even go to your house, even if it's Thanksgiving, or something." The student was doing well in math.

When asked about friends, all the students indicated that they have friends within the A+ program and outside the program. They said that it was "OK" to be in A+, and although they get teased, some, most of the other students look up to them. All of the students strongly recommend the program to others.

Students felt was that the A+ program was getting them ready for high school. In the Detroit schools, students can apply to magnet "schools of choice" for high school, and the acceptance into the most challenging schools was competitive. The students seemed to feel that A+ was a first step to a "good high school" which would lead to a chance for college.

A+ Program Evaluation

The A+ program was evaluated by the students, teachers, principal, and central office staff as part of its annual review. Survey questions asked students to reflect on the goals of the program and on how well the program help them reach these goals. Questions on the survey included "In what ways has this program helped you develop the ability to work and study independently?", "Describe how the program has helped you develop problem solving, critical and creative thinking, and decision making skills," and "Please feel free to share any additional comments regarding your experiences in this program."

The teachers and principal met to discuss program goals and review the students accomplishments. Student products and achievements are used to help evaluate the programs effectiveness. There was little involvement of parents in this process. Each year this evaluation information was used to help with goal setting for the next year.

Future Directions for Burbank

We asked the principal, faculty, and parents of Burbank where they saw the school and the A+ program going and what if any difficulties they felt needed to be addressed. Their responses indicated that they see the program and the school as continuing to grow and develop.

The principal envisioned more teacher teaming and teacher involvement in goal setting. He also would like to see greater use of instructional grouping with a focus on challenging all students appropriately. Burbank was moving toward becoming a more "authentic" middle school, and the principal wanted to add some type of advisor-advisee componentd, for additional support for the students' emotional growth.

His major problems involved the number of teacher/scheduling changes which took place at the beginning of each year as the student enrollment settled down.

Teacher assignments depended on the number of students, and as enrollment shifted teachers were moved from school to school. One year this school wide reorganization was done five times before things eventually settled down. This was difficult on the students.

The teachers felt that more acceleration of all students should be going on, and that all of the staff could use many of the teaching techniques employed in the A+ classes. They felt good about their use of teaming, but saw this as an area for continued growth. Their main concerns were very real and pragmatic: no supplies for science; no computers; the need for more books, materials, and resources for their students; and large class sizes (the current size is 32-35). These concerns were also echoed by the parents and principal.

The parents wanted to see a better physical plant (they realize that this is being built), more emphasis on real world experiences and career awareness, including mentorships and apprenticeships. They were also worried about college funding and wanted to see scholarships available to students who do well in school. Mostly the parents wanted to see a continuation of the strong challenge and support for their children which they felt Burbank offered.

Summary

Burbank Middle School had developed a program to provide challenges to their top students. The commitment of the principal and faculty assured that the students received appropriate educational experiences despite severely restricted physical and material resources. The students felt confident they could meet the high academic expectations of the faculty with the strong support of the faculty. Althougnh there has been limited parental involvement in the school the parents we spoke with expressed pride in their children's abilities and a strong valuing of education. The A+ program also

had a ripple effect in other aspects of the school and seemed to be raising the expectations of all students.

Meads Mill Middle School

Meads Mill, visited on May 20-21, 1992, is located in Northville Michigan, an affluent suburb of Detroit. The demographics of the school reflected the community with less than 2% of the students coming from culturally diverse families. The majority of the parents had college educations, and their socioeconomic status ranged from upper middle to upper class. The mean IQ for the student population was 118, indicating that, in general, these students fell within the upper ranges of ability.

The school was built as a model middle school during the early 1970s and was originally designed with "pods" in which the classrooms were not separated by walls. Over the years the classroom areas were closed in to allow for additional noise control and class structure. The building housed a large library, equipped with microfiche and computer data bases for references; three computer labs, one for computer classes and two that were used on a sign-up basis; science labs for each grade level with live animal centers, green houses, and equipment for experiments; and a music room with the latest technology in sound systems.

The school was nicely decorated with student projects. Students in the art classes had created designs which were painted on the ceiling tiles, the walls displayed science and health posters, and mobiles hung from several points. Several varieties of plants provided additional color and feeling of warmth to the school. The care of these plants was provided by the science students as part of their program. The wall outside the main office was dubbed the "Wall of Fame" and awards ranging from academic recognition to citizenship honors were displayed. In the center of the wall, a mirror reflected the staff's commitment to recognize all students!

Attributes of the Middle School at Meads Mill

Meads Mill made the transition to middle school in the seventies and the building was specifically designed to accommodate this change. The faculty was organized around teams for planning. They focused on both student adjustment needs and the development of interdisciplinary curriculum. A strong intramural program backed up the competitive athletic teams to allow more students to participate. The focus on student adjustment and social/emotional development was addressed primarily through the regular class activities. However, the faculty was planning to initiate some form of an advisee-advisor program to address what they perceived as a growing need.

Program for gifted students: Alternative Learning Program for Students (ALPS)

The ALPS program was initiated out of parental concern that the needs of gifted students were not being appropriately met within the Northville schools. A working advisory committee made up of parents, teachers, and administrators spent a year reviewing information, attending conferences, and hearing from experts in gifted education. Based on this intense study of gifted education, a philosophy, goals, and program plan were developed and the ALPS program was born.

Our particular interest was how gifted students in the middle grades were being served, however, the context of the total ALPS program gives a fuller picture of how student needs are met.

The ALPS program began at the third grade with self-contained magnet classes of gifted students. The sixth grade class, which we visited at the middle school, had been the first self-contained ALPS class. The service delivery model changed at the middle school from self-contained to a combination of instructional grouping for "concept classes" in math, advanced language arts, and academic enrichment. At the high school

there was no official ALPS program, but students could take advanced classes and could be dually enrolled in college level classes if their parents provided transportation.

ALPS Student Identification. Many of the Meads Mill sixth grade ALPS students had been identified for the first self-contained magnet ALPS class in the third grade. The procedure involved nominations of students by teachers and parents, as well as a screening of students' test scores. The scores which qualified a student for further screening were 95th percentile on the total battery for Achievement, or 97th percentile on an individual measure of IQ.

A review committee met to look at each student in the screening pool and to rank the students according to IQ, achievement, and creativity test scores. They used a matrix to establish a "screening score" for each student. During this process the committee took note of any students with special needs (e.g. students from culturally diverse families, or students with disabilities). The committee also looked at whether or not the siblings of the students had been identified and gave special consideration to those individuals with brothers or sisters in the program. The criteria for acceptance in the ALPS program were fairly stringent, and the students identified were the highly able, within a school of very able youngsters. Although a screening score was established, and students were ranked by this score, the committees placement decision was not made on the sole basis of the student's rank. The committee recommended placement for any student they believed would profit from the program regardless of the screening score, including those highly able students who were non-achievers. The average IQ for the ALPS program was 135.

At the middle school, students who had been identified earlier in their school career continue in the program. New students could be referred to go through the same process for identification. Parental notification and approval were necessary before placement in the ALPS program.

Structure of the Program. The ALPS program at the middle school level used a combination of concept classes in math; advanced language arts; cluster grouping of ALPS students within other classes; and academic enrichment classes. The ALPS students were placed on the same team with teachers who had volunteered to take additional staff development on curriculum differentiation. The ALPS program was integrated into the school curriculum and the academic enrichment classes were part of the total school program. All students had one period a day devoted to enrichment. Students selected classes every nine weeks from a variety of topics; ALPS students had the option of either taking a "regular" enrichment class or of signing up for the ALPS enrichment each nine week period. The majority of eligible students signed up for the ALPS enrichment.

Curriculum Differentiation. The concept math classes were taught at a more advanced level and quicker pace then the traditional math classes. The language arts program was similar to this but with a focus on enrichment. The teachers used the same textbooks as used in regular classes, but they were able to cover the material more rapidly and so could provide additional experiences involving more complexity and sophistication. The teachers used Bloom's Taxonomy as a structure for making the curriculum more complex. The Taxonomy was also taught to the students to encourage them to ask higher level questions. Students in the math and language arts classes reported that they did more projects, writing, and seminars, and that they spent more time on things which interested them. The concepts teachers indicated that time was not as much of an issue in these classes because the students could master material more quickly.

The curriculum in the science and social studies classes, which were not grouped by ability/performance was also differentiated for those students who needed more challenge. In the science classes students were pretested before the unit began and

those with 90% mastery were allowed to pursue independent projects of their choice. The project focus remained in the science area, but the topic could differ from that of the original unit under study. In both social studies and science class we saw teachers using at least three levels of assignments. The students could self select the difficulty level they wished to tackle, however teachers indicated that they strongly encourage students who could handle the challenge to select the more difficult levels. In addition to the levels of complexity many teachers offered bonus questions which required problem solving.

Several special curriculum activities were available for students. The Invent America program, Science Olympiads, and Odyssey of the Mind were optional activities. The regular program also included electives in computers, foreign languages (e.g. French, Spanish, German), and art.

In some instances, the teachers planned units together with a multi-disciplinary emphasis. While we were visiting, the seventh grade teachers were planning the culmination of a two week fitness unit which involved math, science, language arts, art, PE, and social studies. Each teacher focused on the unit theme and the day being planned was filled with activities to highlight aspects of the unit.

The students saw the ALPS enrichment class as focusing most on the development of creativity and thinking. The curriculum centered around units which changed each nine weeks. While we were there, we saw an economics simulation underway in the sixth grade, and independent projects were being shared in the eighth grade class. The ALPS teacher said that she tried to emphasize research skills and to give the students time to explore topics of interest to them.

Overall, several strategies were in place to individualize the curriculum for all the students, which meant that students were allowed to move through the curriculum at a rate appropriate to their needs and to study topics which interested them. The

educational options available to gifted students were infused throughout the curriculum and time was also provided for gifted students to work together and learn with each other.

Points of View on Meads Mill

The perspectives of the administration, faculty, parents, and students give us a feeling for the school as a whole, and for how the ALPS program fits into the school.

Administration. The school principal had been the junior high principal in the 1970s and had taken the school through the transition into a middle school during the 1980s. His philosophy of leadership seemed to hinge on teacher autonomy and trust. He spoke proudly about the school and the faculty. His knowledge of the middle schools philosophy, and of the developmental needs of young adolescents allowed him to guide the faculty in curriculum planning to meet student needs. The schedule he had developed, with his staff, was built on a seven period day (periods were 45 minutes). Each teacher taught for five periods and had two planning periods per day. Students took four core subjects, two electives and had an academic enrichment class every day.

The principal's commitment to gifted students stemmed from long experiences with students who were academically able. He expressed the feeling that gifted students need to be appropriately taught, and that they benefited from being with other gifted students for a part of the day as well as with other students part of the day. The school system was anticipating some budget cuts which would reduce the teaching staff and alter the ALPS program. The principal indicated that if this happened, he would strive to incorporate the components of the program into the regular school budget so that services could continue.

When we asked him about his plans for the future of the school, he indicated a need for an expanded emphasis on the students' affective development through an

advisor-advisee program. He also wanted to increase the use of interdisciplinary curriculum and to explore mentorship/internships as a program option. His vision for the school was one of continuous growth in meeting the needs of all students and he expressed confidence in the ability of the staff to create optimum learning environments for each student.

Faculty. The faculty expressed a genuine fondness for the principal and looked to him for his leadership and advice. They felt that he trusted their abilities and supported them in their efforts and that they, in turn, did not want to let him down. They spoke fearfully of the day that he might retire. Their commitment to the school was very high; most had been there for several years. They described the transition from a junior high to the middle school as a time when those who could not change transferred out, those who were mildly resistant were converted, and those who were enthusiastic helped to shape the current program.

All teachers on the ALPS team had received additional staff development on the needs of gifted students and were able to use a variety of strategies to adjust the rate and complexity of their lessons. These teachers had volunteered to teach the ALPS kids and said that they enjoyed the additional challenge it gave them. One of the difficulties the ALPS faculty expressed about the teams was that other teams had not been given enough high ability students. In addition, their team had not been given some of the students with special learning needs (e.g. students with learning disabilities, emotional, and/or behavioral problems). This concern was expressed by teachers on other teams as well and the plan for the next year was to cluster the ALPS kids on one team, place the high achieving kids on the other teams, and to distribute the special needs students among all the teams.

When we asked if the staff development on meeting the needs of gifted students had changed the ways they taught other students, their response was a strong "Yes!"

They used many of the differentiation strategies with all of their students to varying degrees. Overall, the teachers were enthusiastic, knowledgeable, and committed to providing appropriate challenges for their students.

Parents. The parent we interviewed were very knowledgeable about gifted students. Several of them had served on the advisory board which had developed the ALPS program. They expressed overall satisfaction with the program, but did have several concerns. The majority of the concerns centered around the transition of the students from the self-contained ALPS classes in grades three through five, to the middle school program. Several parents felt that more differentiation should be offered to increase the rate and level of student learning. A few parents expressed their concern that independent projects (as an alternative to unit material which had been mastered) was a strategy which did not seem to work well for their child. Others, however, said that their children loved this part of the program.

Overall the parents felt that the ALPS enrichment classes, concept math, and language arts classes were excellent, but that they would like to see more differentiation in some of the other classes as well. Several parents were concerned that the high school's curriculum would be unable to meet their child's needs.

Students. We asked the students if it was "OK" to be smart at Meads Mill and they said "Yes!" They indicated that they are sometimes teased a little but that it was better to be "teased because your are smart than because you are dumb". In describing their ALPS classes they were very favorable. They liked the projects, the research, and learning things that related to real life. They especially like the time to discuss ideas with other who shared their interests and motivation. One student said it would be great if all classes could be like ALPS. The students agreed that it was sometimes frustrating to be with students who didn't seem to care about learning. When we asked if they would

rather go back to being with only ALPS students again, they said, "No." They felt that in middle school it was essential for them to be with other students *sometimes*.

When we asked about friendships, the students reported that they had friends both in the ALPS program and outside of it. In looking at things they might want to change, they had few ideas. For the most part, they liked the program as it was set up.

ALPS Program Evaluation

A formal evaluation of the ALPS program was completed each year. Information was sought through surveys of parents, students, and school faculty. The ALPS program outcomes are also examined as part of the annual school review and school improvement process. This specific attention to the assessment of both student and program accomplishments was encouraging.

Future Direction for Meads Mill

Although the anticipated budget cuts may reduce staff for the ALPS program, the commitment to keep the program in place was strongly voiced by the principal and faculty. The parents also felt that their advocacy efforts might influence this decision. The coming year would probably focus on the development of an advisor-advisee program to work with the affective needs of the students.

Summary

Meads Mill school has developed a program for gifted students which is well integrated into the overall school agenda. The students are placed on the same team with teachers who have had additional staff development to learn strategies for differentiating the curriculum. The combination of concept math classes, advanced language arts, academic enrichment, and strategies for individualization within the science and social studies classes provided a wonderfully balanced school experience. The use of the extensive resources available further enhanced the opportunities of the

ALPS students. The strong regular education foundation allowed for appropriate differentiation for students who needed it.

Cross Site Results

One of the goals of the five case studies was to find those elements that all of the school programs appeared to have in common, those that formed the core of middle school and gifted education collaboration. Each factor's rating of importance, at each school, is presented in Table 2. These factors were rated for their importance to the success of the school's program for gifted learners. The areas where all sites were rated as (A) critical or (B) very important, indicate factors which seem essential to the successful blending of middle school and gifted education. Those factors which varied in importance from site to site indicate program dimensions which, while important, or even critical to some schools, may not be keystones to success in other situations.

Areas Of Importance At All Sites

The ten areas which were rated as critical or important at all five sites were: school site administration; autonomy of principals; autonomy of teachers; availability of expertise and human resources; enthusiasm of students; enthusiasm of teachers; a sense of trust; a commitment to the school; some form of instructional grouping; and some form of enrichment.

The administrative leadership at each of the sites played critical roles in shaping their schools. These individuals were highly committed to the middle school philosophy and to the notion that all children should have the opportunity to learn at appropriate levels and rates, and this clearly included the gifted students. Principals seemed to feel a high level of autonomy in terms of decision making. They indicated that they were taking "site based management" seriously. Although they varied in their years of experience.

Table 2

Key Factors Influencing the Success of Middle School Programs for Gifted Students*

	A (Critical)	B (Very Important)	C (Somewhat Important)	D (Little or No Importance)
1. Leadership				
-Central Office Administration	••		••	•
-School Site Administration +	•••	••		
-Teachers	••	••	•	
-Parent/Advocates			••••	•
2. Commitment to Gifted Students				
-School Site	••	••	•	
-School system	•	•	•••	
3. Staff Development				
-Middle School Model	•••		••	
-Gifted Learners	•	•••	•	
4. Autonomy				
-Administration (School Site) +	••••	•		
-Teachers +	•••	••		
5. Availability of Resources				
-Materials/Physical	••	•	•	•
-Expertise/Human +	••••	•		
-Time	•••	•	•	
-Community	••	•		••
6. Attitude Within the School				
-Enthusiasm (Students) +	••	••		
-Enthusiasm (Teachers) +	•••	••		
-Trust +	••••	•		
-Commitment to School +	••	•••		

* Each dot (•) represents one school

+ Indicates factors which were critical or very important in all schools

Table 2 (continued)

	A (Critical)	B (Very Important)	C (Somewhat Important)	D (Little or No Importance)
7. Curriculum Differentiation				
-Instructional Grouping (ability/performance)+	••••	•		
-Mentor Programs	•		•	•••
-Interdisciplinary Units	•••		•	•
-Flexible Pacing	•	•••		•
-Enrichment+	••••	•		
-Independent Studies	•	•	••	•
-Advanced Content (Sophistication)		••••	•	
-Thinking Strategies	••	••	•	
8. Affective Program				
-Counseling	•	••	••	
-Advisor/Advisee	•	•	•	••
-Group Work	•	••		••
-Families/Teams	•		••	••
9. Teaming				
-Teachers	•••	•	•	
10. Written Plan				
-Plan for Gifted Students	••	••		•
11. Evaluation	••	•	•	•

* Each dot (•) represents one school

+ Indicates factors which were critical or very important in all schools

and backgrounds, they all seemed to have confidence in their ability to create an environment in the school which encouraged student achievement.

The teachers mirrored this sense of autonomy in their classroom decision making. They clearly felt that they were professionals and that their ability to create appropriate learning environments was expected and appreciated. The faculties at the schools we visited were enthusiastic, and committed to both their students and their school. Their students returned this enthusiasm.

These attitudes were reflected in the sense of trust which impressed us as we talked with faculty, administration, and students. There were no "us versus them" dichotomies dividing the school community. Communication was open and frequent and there seemed to be room for disagreement without difficulty. While the level of enthusiasm on the part of the students may be a by-product of the overall program effectiveness, it also seemed to reward teachers and administrators for their continuing efforts.

At each school, there was at least one individual who seemed to have a great deal of expertise on meeting the needs of gifted students. The presence of this person and the confidence that other school personnel placed in his/her knowledge and guidance meant that support was available on site to meet the needs of gifted learners The availability of this support appeared critical to implementing these programs.

Differentiated services for gifted students varied from site to site. However, at each school some form of instructional grouping was used, and some form of enrichment was provided. Students were grouped by performance and ability for instruction in math and language arts at all the sites. These classes were not limited to "gifted" students who had been formally identified. Instead they were also available to any student who needed the level of challenge they offered. Social studies and science classes were more likely to use enrichment opportunities to differentiate for the gifted

students, but, as seen in the individual profile descriptions, some schools used instructional or performance grouping even for these subjects.

Areas Which Varied in Importance

The other factors included in Table 2 varied in their level of importance from school to school. While leadership from the central office, teachers, and parents played some type of role in most schools, these areas were not critical at all the sites. The involvement of parents and community members as leaders in these endeavors was often a minimal influence. Most of the vision and direction for these programs came from school personnel.

Commitment to gifted students at both the school system and site levels varied. In some cases, the school had made a strong commitment while the school system itself remained lukewarm about this special topic. The more prevalent feeling was a commitment to all students and to the achievement of excellence with high expectations. This led rather naturally to the provision of opportunities for challenge and advanced studies for gifted students.

Staff development on both middle schools philosophy and the needs of gifted students was important. However, the presence of a resource person knowledgeable in the education of gifted students, whose expertise and guidance was valued by the staff appeared to be even more critical. This "human resource," in fact, proved to be the single most important of the resources available. The adequacy of material/physical resources, time, and community resources ranged from abundant to almost non-existent, and the level of contribution these factors made followed this same pattern.

Strategies used to differentiate the curriculum for gifted students included: interdisciplinary units, mentor programs, flexible pacing opportunities, independent studies, advanced/sophisticated content, and the direct instruction of thinking

strategies. These were used in varying content areas to differing degrees. As noted earlier, some form of ability/performance grouping and enrichment was used at all of the schools. Programs designed to meet the affective needs of students differed greatly from school to school, but were present in some form at all sites. In some cases there were strong advisee/advisor programs, while in others the family/team was the critical social and emotional link. Some of the schools had formal classes which were devoted to addressing the affective needs of the students while others relied on their counselors to fill these needs.

With the exception of one school that had an outstanding program of affective education, most of the schools, however, seemed to be somewhat uncertain about the affective dimension of their middle school program. While they all subscribed to the principle that the school has a responsibility to help the students with their affective development, there was little agreement or confidence in the particular methods they were following to carry this requirement out. The administrators clearly felt that they were still in the process of finding the best way for them to achieve that task.

All of the schools used teacher team planning and most described them as an essential component of their school's success. The teachers felt that their team members were their friends and that the personal support they got from these teams was as important as the professional assistance. At one site, however, the reliance on the team was not especially influential.

All but one of the sites had a written plan which described their program for gifted students. These plans included goals and objectives and, in one school, this outline clearly differed from the core objectives laid out in the basic curriculum. The evaluation of these programs ranged from intensive to non-existent, but, in most cases, some thought had been given to documenting program and student achievement.

Table 3

Organization of Service Delivery Systems for Gifted Students

1. **"Pull-out" Variations**
   - In one school students were "pulled out" from their classes to work with their gifted & talented teacher on a rotating basis. The schedule was organized with the assistance of a computer to ensure that students did not miss the same class each week.
   - In one school, an enrichment class was scheduled within the overall school day for all students. Gifted students could elect to take either general enrichment units or the gifted enrichment activities offered each nine weeks.
2. **Separate Classes**
   - In all five schools, language arts and math were taught in classes grouped by ability and/or performance.
   - Two of the schools used blocks for language arts and social studies; thus, social studies was also taught in classes which were ability grouped.
   - Two schools taught all academic subjects for the students identified as gifted in separate classes. In one of the schools this was done by intent; in the other it was as a result of scheduling needs.
3. **Cluster Grouping**
   - Three schools placed all the students identified as gifted on the same team and teachers of this team were required to have additional expertise in meeting the needs of these students.
   - In the other two schools the team was primarily designed for teacher planning and gifted students were clustered across teams - coming together for activities related to the gifted program.

Variations on Service Delivery Models

In addition to looking at the factors related to the successful blending of services for gifted students with the middle school philosophy and organization, we looked at the variety of service delivery models the schools used. Table 3 shows the types of service delivery plans used by the schools in the study. Each administrative model has benefits, and each has costs. When, for example, students identified as gifted are clustered on one team, there is the possibility that other teams might be regarded as less than optimal. On the other hand, if the students identified as gifted are clustered across teams and then taken out of their teams for academic and enrichment activities, the integrity of the team is diminished. The needs of each school were different, and the strategies they used, to ensure that adequate challenges were available to their most able learners, reflected these differences.

Conclusions

The major finding from these five case studies is that it is possible to blend the philosophies of middle school and gifted education. The reader must be reminded that the schools in this study were carefully selected because they showed promise for a strong program in both of these areas. The analysis of these visits supported that promise.

The analysis also confirmed that there are many different patterns that led to successful coexistence and collaboration between these two program interests. Despite distinctive differences among sites, reflecting local situations and conditions, these programs also possessed some clear commonalties. The emphasis on administrative leadership at the school level, the clear set of educational objectives, and the responsiveness of the teachers to their opportunities were echoes of the effective

schools movement (Edmonds, 1979; Purkey and Smith, 1983; Mortimore and Simmons, 1987).

In particular, it was interesting to note that all of the schools used some form of ability and/or performance grouping of students. In two instances, this was done despite an apparent policy difference between the school and the central administration. The grouping was done, not for philosophical reasons, but because it seemed to be the most effective way to solve the educational problems that the school faced in providing a challenging program for the advanced students while working to meet all students at their instructional level.

The earlier study comparing the attitudes of middle school personnel with the attitudes of educators of gifted students (Coleman & Gallagher, 1992) indicated that there were differences in the perceptions of middle school and gifted education professionals regarding how the middle school program should incorporate gifted students. In particular, the educators of the gifted seem to have negative attitudes toward the middle school philosophy and design, perceiving it as a possible threat to their programs for gifted students.

The strong statements by some proponents of the middle school movement regarding the importance of heterogeneous grouping as an essential element to middle school programs have resulted in many school systems' entertaining the possibility of dropping honors classes and/or classes for gifted and talented students. Based upon what we have seen here, such actions seem to be premature and may even be reckless.

A recent statement by one of the strong advocates of heterogeneous grouping, Paul George, is a case in point:

> Without detracting from the importance of achieving equity in education, it is only fair to point out that no group - nor individual student - should be expected to sacrifice an excellent education so that others might do better...we must find ways for high ability, high

> achieving learners to do their very best within the context of an inclusive school characterized by diversity and heterogeneity (George, 1993, p. 23).

This statement suggests that we have yet to discover how to challenge gifted students within a heterogeneous setting. Under these circumstances it would seem unwise to abandon proven models, such as honors classes, until we have definitive evidence that the needs of advanced students can be addressed as well or better under a totally different educational setting.

The results of this study showed that there are a number of ways of blending gifted education with the middle school movement. This blend seems to be working effectively in a variety of settings. The pragmatic approach taken by the staffs of these schools, that "we will do what works," seemed to be predominant features of these schools.

Perhaps, the lack of communication between educators in the middle school and those in gifted education has contributed to the feelings of "threat and concern." A major effort by the professional associations representing these two groups, bringing representatives of these groups together and providing illustrations of effective practices, could protect against another unnecessary educational battle within the profession. We encourage and look forward to these collaborative efforts.

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