Creating Small Learning Communities

Contents

continued

All items in the Appendix are also on the CD-ROM.

To the Change Agent

We hope the idea of small learning communities captures your imagination as a place of learning where every student achieves at high levels and teachers are passionate about their work. Many secondary schools fall short of our aspirations of what good schools should be. Often, the less-than-effective schools are large and impersonal.

At the same time, numerous large schools have made remarkable progress by redesigning themselves into smaller learning communities. They offer inspiration that this innovation may be the route to achieve the schools of our dreams. There is no question that small learning communities can be successful. However, as with most innovations, adopting the small learning community model does not guarantee success, nor does it become reality without hard work.

Creating Small Learning Communities provides practical tips and tools to create successful small learning communities.

Chapter 1 – Aspirations, Issues, and Opportunities provides an overview of the research, best practices, and obstacles to achieving small learning communities. The most important point when undertaking an initiative to create small learning communities is to have specific learning goals. A small learning community is not an end in itself; it is a means to an end. You must be clear about the goals you wish to accomplish by creating a smaller school.

Chapter 2 – Staff, Students, and Stakeholders provides suggestions on dealing with the essential people issues. Everyone must work together to make the transition to a small school successful.

Chapter 3 – Teaching and Learning is at the heart of the small learning community. A conversion to a small learning community that does not take advantage of the opportunity to make changes in curriculum, instruction, and assessment will likely be a disappointment, since it will retain the lower-than-desired student achievement of the larger school. Included in this chapter are recommendations and tools to create a more rigorous and relevant interdisciplinary curriculum to challenge students.

Chapter 4 – Logistics provides suggestions on campuswide issues that arise when several small schools are created on a common campus.

Chapter 5 – Learning from Others: Case Studies and Resources has descriptions of five high schools in diverse communities that have been successful in creating small learning communities. Also included is information about publications and research from the International Center for Leadership in Education that can assist small learning communities with teaching and learning.

Throughout the text and in the Appendix are tools, such as questions and answers to prepare for those many meetings, forms to modify and use in planning processes, and checklists to keep track of progress and measure your success. For your convenience, electronic versions of all tools are included on the CD-ROM.

Small learning communities are not the solution for every large school. However, they can be a powerful and rewarding way to improve student achievement in your school. If you are considering creating or expanding one or more small learning communities, follow these suggestions and build on the experience of others to make the change successful.

Helen M. Branigan
Richard D. Jones, Ph.D.

Chapter 1   Aspirations, Issues, and Opportunities

Connection between Small Learning Communities and Successful School Reform

Years of education reform initiatives and research have revealed effective, tried-and-tested strategies for raising student achievement. In its work with schools throughout the country, the International Center for Leadership in Education has identified the following factors that contribute to student and school success.

Please see the Appendix for a rubric on which to rate your school with respect to these components.

The Appendix also has a Parent Survey on Learning Communities related to these components.

Components of Successful School Reform

1. Create a culture of rigor and relevance for all based on the belief that all children can learn.
2. Use data to provide clear, unwavering focus on curriculum priorities that are both rigorous and relevant by identifying what is essential for students to learn.
3. Set high expectations that are monitored; then hold both students and adults accountable for students' continuous improvement in the priorities identified.
4. Create a curriculum framework that drives instruction toward rigor and relevance *and* leads to a continuum of instruction between grades and across disciplines.
5. Provide students with real-world applications of the skills and knowledge taught in the academic curriculum.
6. Create multiple pathways to rigor and relevance based upon students' interests, learning styles, aptitudes, and needs.
7. Provide sustained professional development focused on improving instruction.
8. Obtain and leverage parental and community involvement.
9. Establish and maintain safe and orderly schools.
10. Offer effective leadership development for administrators, teachers, parents, and community.

NOTE: *All items in the Appendix are also on the CD-ROM.*

Creating Small Learning Communities

The International Center arrived at these 10 components through meta-analysis of the considerable research that has been done on school reform. So much research has been done, in fact, that it is possible to find at least one study that supports almost any position. Too often, researchers start out to prove a point and guide their research to prove it. Therefore, meta-analysis – the process of looking for commonalities behind the research – is important to find the universal thoughts about school reform. Seven major meta-analysis studies have been done in recent years on school reform. A meta-analysis of the seven meta-analysis studies was completed by the International Center. The 10 Components of Successful School Reform were identified using this meta-analysis. The following is a summary of this analysis.

Ronald R. Edmonds. "Search for Effective Schools." NIE, East Lansing, MI: The Institute for Research on Teaching, College of Education, Michigan State University, 1981.

Dr. Edmonds was the leading researcher in school reform in the 1970s, and his work is still highly respected by education leaders. He created what is now known as the "effective schools model." Dr. Edmonds' research noted the five following characteristics of successful schools:
1. Strong administrative leadership
2. Focus on basic skills
3. High expectations for student success
4. Frequent monitoring of student performance
5. Safe and orderly schools

Jaap Scheerens and Roel Bosker. *The Foundations of Educational Effectiveness*. New York: Elsevier, 1997.

Scheerens and Bosker's work was well recognized and embraced in the mid to late 1990s. They conducted research on a wide variety of school reform initiatives and came up with eight essential characteristics of successful schools. The characteristics they identified were:

Meta-analysis is the process of looking for commonalities behind the research.

Chapter 1 Aspirations, Issues, and Opportunities

1. Monitoring of student progress
2. Focus on achievement
3. Parental involvement
4. Creating a safe and orderly climate
5. Focused curriculum
6. Strong leadership
7. Cooperative working environment
8. Time on task

U.S. Department of Education. "Key High School Reform Strategies: An Overview of Research Findings." 1999.

For this report, a team of researchers studied the 300 most comprehensive school reform research studies done in the previous five years. The common characteristics they identified were as follows:
1. Commitment to high academic expectations
2. Small learning environments
3. Structure learning around career/student interest
4. Professional development focused on instruction
5. Tie out of school learning to classroom learning
6. Career and higher education counseling
7. Flexible, relevant segments of instruction
8. Assess what students can do
9. Partnerships with higher education
10. Support alliances with parents and community

Robert J. Marzano. *What Works in Schools – Translating Research into Actions*. ASCD, 2003.

Robert Marzano reviewed research on school reform in this book. The five characteristics he identified for highly successful schools were as follows:
1. Guaranteed and viable curriculum
2. Challenging goals and effective feedback
3. Parent and community involvement
4. Safe and orderly environment
5. Collegiality and professionalism

Custer Quick and Doris Quick. "High Poverty – High Success: Schools That Defy the Odds." In: International Center for Leadership in Education, *2000 Model Schools Conference Proceedings*, 2000.

In June 2000, Custer Quick and Doris Quick, International Center Senior Consultants, did an analysis of five models of high-achieving schools. They studied the 90-90-90 Schools, No Excuses Schools, Benchmark School Study, Hope for Urban Education Study, and Beating the Odds Study. They reviewed the characteristics that each of these major initiatives had found to be central to student success and established the following five overriding characteristics:
1. A commitment to a rigorous and relevant curriculum for all students
2. Implementation of a testing program that evaluated both students' conceptual knowledge and their ability to apply knowledge
3. A focused and sustained staff development program
4. Commitment to addressing the issue of student behavior
5. Willingness to make organizational changes for the benefit of students

The Bill & Melinda Gates Foundation Education Reform Strategies – Foundation Definitions of Effective High Schools. *Targeted Literature Review of Major Constructs and Their Components: Evaluating the National School District and Network Grant Program*. May 30, 2002.

The Bill & Melinda Gates Foundation has made a major commitment to school reform, especially at the secondary school level, following an extensive review of the research on the components of successful schools. The characteristics it identified as most important were:
1. Common focus on a few research-based goals
2. High expectations
3. Small, personalized learning environment
4. Respect and responsibility for all
5. Parent/community partnership
6. Focus on performance
7. Effective use of technology tools

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Lawrence W. Lezotte, Robert D. Skaife, and Michael D. Holstead. *Effective Schools – Only You Can Make a Difference*, All Star Publishing, 2002.

Larry Lezotte picked up leadership on the effective school research that Ron Edmonds started in the 1970s. In his recent book, Lezotte noted the following as the most important characteristics of effective schools:

1. Creating the school culture
2. The correlates of effective schools
3. Site-based management
4. Data collection, disaggregation, and analysis
5. School improvement plans process
6. Organizing schools for students
7. Building community support
8. Evaluation of student progress

Why Consider Small Learning Communities?

Cotton, K. *School Size, School Climate, and Student Performance*; Imsher, K. "School Size"; Klonsky, M. "Small Schools: The Numbers Tell a Story. A Review of the Research and Current Experiences"; McRobbie, J. *Are Small Schools Better? School Size Considerations for Safety and Learning*; Page, L., et al. *National Evaluation of Smaller Learning Communities: Literature Review*

Numerous studies and successful models in middle and high schools are substantiating the value of small-scale schooling, for example in terms of academic and social benefits and improved attendance and graduation rates. Students achieve higher test scores in small schools; they are more likely to pass their coursework, graduate, and attain a higher level of education than students attending larger schools. Smaller class size and integrated curricula enhance and encourage the growth of teacher-student relationships. The personalization possible in a small learning community also enables the teacher to be more cognizant of a student's performance and thus increases student accountability. Administrators and teachers can more easily reform curricula, teaching methodologies, instructional strategies, and assessment systems in small schools. Small schools also do better than large schools in closing the achievement gap between students in different ethnic and socioeconomic groups.

Students feel valued and cared for in the personalized environment that a small school offers. They feel better about themselves and their academic promise. Students' attitudes are more positive in a small school community.

Table 1
Successful Practices Network Components Matched to
Characteristics of Successful Schools

Network Components	Edmonds	Scheerens & Bosker	U.S. Dept. of Education	Marzano	Quick & Quick	Gates	Lezotte
1. Create a culture					Rigor and relevance for all; Willingness to change		Creating the school culture
2. Use data to set instructional practices	Focus on basic skills	Focused curriculum		Guaranteed and viable curriculum		Common focus on few research-based goals	Data collection, disaggregation and analysis
3. Application			Structured learning around career/ students' interests		Commitment to rigor and relevance		Organizing schools for students
4. Framework to organize curriculum			Classroom instruction tied to out-of-school learning; Flexible, relevant segments of instruction				Organize schools for students; Correlates of effective schools
5. Multiple pathways			Small learning communities			Small personalized learning environment	

Table 1
Successful Practices Network Components Matched to
Characteristics of Successful Schools (continued)

Network Components	Edmonds	Scheerens & Bosker	U.S. Dept. of Education	Marzano	Quick & Quick	Gates	Lezotte
6. High expectations with accountability	High expectations; Monitoring student performance	Focus on achievement; Monitoring student progress	Commitment to high expectations; Assess what students can do	Challenging goals and effective feedback	Test both knowledge and application	High expectations; Focus on performance	Evaluation of student progress
7. Professional development			Professional development focused on instruction		Focused staff development		
8. Parent and community		Parental involvement	Support alliance with parents	Parent and community involvement		Parent/ community partnership	Building community support
9. Safe and orderly schools	Safe and orderly schools	Creating a safe and orderly environment		Safe and orderly environment	Address student behavior	Respect and responsibilities for all	
10. Leadership development	Strong administrative leadership	Strong leadership		Collegiality and professionalism			Site-based management
Other		Cooperative learning environment; Time on task	Career and higher education counseling; Partnerships with higher education			Technology tools	School improvement plans

Creating Small Learning Communities

Students and teachers experience a strong sense of belonging in the small school personalized environment. Interpersonal relationships are fostered. Students in small schools feel less alienated and have more opportunities to participate in school activities because there is less competition for selection and membership on athletic teams and in extracurricular and youth leadership organizations. This is significant because involvement in extracurricular activities is often related to positive attitudes, high self-esteem, and appropriate social behavior.

Students in smaller schools have better attendance rates than those in larger schools. This is particularly true for minority and low socioeconomic status students. Dropout rates are lower, and graduation rates are higher than in large schools.

Disciplinary problems are reduced in small learning communities, which can be attributed to the strong teacher and other adult relationships students have and the personalization of the environment. Students are suspended less and use drugs less than their counterparts in larger schools. Also, there are fewer instances of vandalism, assault, gang participation, theft, and aggressive behavior reported in small schools. Students feel safer in small schools because of their connections with adults. Moreover, parents are more likely to be involved in small schools.

Students from small learning communities perform as well or better than students from large schools on college-related success areas such as entrance examination scores, acceptance rates, attendance, grade-point average, and program completion.

Larger schools, with bureaucracies to manage and control their large number of students, have a tendency to spend more than small schools to support their efforts. Small schools may save money by doing away with the large-school specialized staffing.

Need for Small Learning Communities Checklist

Small learning communities offer several advantages in creating successful schools. The following checklist identifies several challenges that could be addressed by creating a small learning community. If you check "yes" to the majority of these items, one or more small learning communities may be an option worth considering at your school.

Yes No

❑ ❑ You tried to implement such initiatives as shared decision-making or a student advisor program but with little success.

❑ ❑ Your high school has more than 1,600 students (800 students for middle schools).

❑ ❑ You have an annual dropout rate of more than 2%.

❑ ❑ You have a daily attendance rate of less than 95%.

❑ ❑ You have had several years of substandard student performance on state tests.

❑ ❑ A frequent complaint from teachers is that students lack motivation.

❑ ❑ Many students seem to "fall through the cracks" and never take advantage of the all the courses and programs that the school has to offer.

❑ ❑ You have a high number of students failing and repeating courses.

❑ ❑ You have an unsatisfactory number of discipline incidents.

❑ ❑ The faculty is fragmented, with several cliques and few examples of collaboration in instruction.

❑ ❑ Curriculum initiatives have been unsuccessful because not all teachers have fully implemented the concepts.

❑ ❑ Few parents are involved or take an interest in the school program.

This checklist is also in the Appendix/CD-ROM.

Creating Small Learning Communities

The benefits far outweigh the disadvantages of small learning communities, but there are some factors to consider that can derail the effort.

Lack of Specific Goals

Creating smaller learning communities is hard work and requires commitment and creativity to make it successful. Too many education initiatives are adopted because they were used somewhere else. The change to small learning communities must focus on the students, and there must be specific, measurable goals. When the transition becomes difficult, it is important for the leadership to remind staff of the goals of the change. When the change becomes successful, meeting the goal is a time for celebration. Not taking the time to celebrate often leads to change efforts appearing to be drudgery.

Leaders need to set goals, keep everyone focused on the goals, and take time to celebrate.

Unchanged Curriculum and Instruction

Creating a small learning community can significantly change the school organization and daily patterns, teacher and student interaction and how students feel about a school. At the same time, teachers will still be assigned classes of students, and they will teach in a discipline area they know. However, if the conversion to a small learning community results in all teachers teaching as they did before, the impact on student achievement will be little different than before. A small learning community allows for great collaboration. The leaders need to take advantage of that collaboration to change curriculum and instruction to increase articulation between grade levels in each subject and to create interdisciplinary connections. Having a career focus is one way of doing this, but all small learning communities should make curriculum changes to take advantage of their special nature. Higher expectations require collaboration and a closely connected curriculum.

A significant portion of this resource kit is devoted to addressing the changes in curriculum and instruction that are essential to high achievement in the small learning community.

Failure to Address Literacy

Failure to focus on literacy can lower student achievement in all subjects.

One underlying reason for poor achievement in high school is the low literacy level of many students. Too many students sit in classrooms frustrated and disengaged because their vocabulary and reading comprehension are far below assigned reading in textbooks and journal articles. Students improve their reading skills by using texts that are slightly above their current level and by engaging in classroom activities that focus on new vocabulary and teach them content related reading strategies.

Schools need to use data on student reading levels to select learning materials, differentiate instruction, and set learning goals. A small learning community may allow teachers to get to know fewer students and know them better, but it also may increase the range of reading abilities in a single classroom. Failure to focus on literacy can lower student achievement in all subjects. A small learning community that does not address literacy through high expectations, data-driven decisions, engaging all teachers in reading in the content area, and differentiating instruction will have disappointing student achievement regardless of the size of the school.

Too Much Emphasis on Belonging

Small schools create a sense of belonging almost immediately with their high degree of personalization. This needs to be kept in balance with academic rigor and relevance. Feeling good about oneself, about others, and about school support is important, but it does not equal academic achievement. Care must be taken to ensure that the small learning community does not become simply a nurturing environment. High expectations for every student must be a priority in all school communities, regardless of size.

Creating Small Learning Communities

Staffing Concerns

When large schools are broken down into smaller learning units, staff issues arise. Transferring from one school to another becomes undesirable to some teachers, and teachers fear the loss of seniority when moving to another school configuration. With the integrated curricular approach of small learning communities, teachers may have to teach out of their certification area or teach something that they have never taught before. Also, some teachers may have less autonomy in small learning communities.

Under the *No Child Left Behind* (NCLB) federal legislation, the requirement of "highly qualified" teachers creates additional concerns for small learning communities. Although "highly qualified" is defined by each state, it does mean that schools will need to be more careful when assigning staff to instructional areas for which they are not certified or for which they do not meet the requirements under the "highly qualified" definition outlined by their state educational agencies.

> If "qualified teacher" under NCLB is interpreted to mean "certified teacher," this could create a problem for the integrated approach of many small learning communities.

Student Assignment

When students are assigned to smaller learning communities, attention needs to be given to avoid segregating groups of students by socioeconomic status, race, or ethnicity.

Timing

Any change initiative needs to move at the appropriate speed in order to be successful. This is certainly the case with small learning communities. While there is no ideal length of time, in most instances a district should consider a year of planning before implementation. Moving too quickly leaves teachers unsure about their competence to teach in a different structure. Many of the implications and unanticipated events are not fully addressed. This can lead to staff, students, and parents becoming skeptical of the new

> Plan and think ahead but do not take too much time.

environment. Likewise, taking too much time is discouraging to staff. If the school takes the time to get everyone "on board," the enthusiasm of the early adopters can wane, and much of the early momentum will be lost.

Focusing on Teachers

Remember, the real goal of change is to benefit students.

If too much time is spent on addressing staff needs and concerns, the original goal of benefiting students will be overshadowed. The change will be weakened, and many of the hoped-for benefits will be lost. At the same time, teachers can and should be vocal advocates for good working conditions. Issues presented by teachers should be addressed.

Obstacles to Creating Small Learning Communities

Any organizational change takes people out of their comfort zone. It can also create resistance if people do not feel a part of the change. Most of the obstacles to creating small learning communities arise around people issues – communication, collaboration, and adequate support. This resource kit is intended to assist education leaders in anticipating obstacles and working effectively to implement school programs that best meet student needs. The following obstacles are addressed.

People Issues

Leadership is the key people issue to ensure that staff, students, and stakeholders work toward the common goals of the school community. School schedule changes or more dramatic reorganizations alter the working/social relationships of staff, many of whom have worked in the same location with the same people for years. If entirely new schools are created, there may be issues of recruitment, reassignment, or retraining of staff. Schools are not completely isolated from the larger community, and parents and other community members need to understand and support the change. Often, business leaders can be valuable resources in implementing a change. New small schools often take on the unfamiliar function of

recruiting and/or selecting students, which is a dramatic change from simply serving each student who walks through the door. People issues and the degree to which they are addressed successfully will make or break the change to a small school.

Another set of issues often arises related to the existing rules and regulations for teacher licensure and certification and teacher contracts. These barriers can stand in the way of creating more flexible learning communities. Here are two approaches for dealing with regulatory issues. One method is to identify the group of people that advocated for the rule to be put in place and seek their support in achieving the goals of the small learning community by amending or exempting the rules. A second method is to explore all existing options for achieving flexibility within the existing rules. Often, laws and regulations are perceived to be more immovable than they really are. Asking questions and being persistent can yield flexibility in the barriers to rules and regulations.

Teaching and Learning Issues

The purpose of school is learning. The purpose of the switch to a small learning community is to improve student learning. If no changes are made in teaching methods and only the structure of the school changes, improvements may be minimal. A new school structure is an ideal time to make changes to teaching strategies in an effort to increase student achievement. Focusing on improving student learning issues is an essential topic for teacher staff development, conversation, and reflection.

Campuswide Issues

Issues will extend beyond learning in the classroom. Any change affects budgets and the cost of instruction. If several small schools exist in a

single building, there are issues around the sharing and scheduling of facilities such as the gymnasium, library, cafeteria, and conference areas. Sports and extracurricular activities also need to be addressed.

Research Shows Small Learning Communities Make a Difference

The trend to create small learning communities, particularly in large urban schools, is increasing rapidly. But do small learning communities really make a difference? Intuition and personal experience lead many educators to support small learning communities because they sense improved learning in small schools in which teachers are more likely to know students personally and can more easily identify students in need of individual attention. But is there objective evidence that these small schools make a difference?

Numerous research studies show that students in small learning communities benefit in terms of learning and achievement. These students have higher attendance and graduation rates, fewer dropouts, equal or better levels of academic achievement (standardized test scores, course failure rates, grade point averages), higher levels of extracurricular participation and parent involvement, and fewer incidences of discipline and violence. A summary of conclusions and supporting data from this research follows.

Increased Attendance

Cotton, K. *New Small Learning Communities: Findings from Recent Literature*

Attendance is easy to measure and highly correlated with achievement. The research shows that small schools improve student attendance. Not only do students in these schools have higher attendance rates than those in large schools, but also students who change from large schools to small alternative secondary schools generally exhibit improvements in attendance. According to a comprehensive review of 31 studies by the Northwest Regional Lab in 2001, converting to small schools improved attendance and was most profound in low-socioeconomic schools in urban areas that have low attendance levels.

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The Bank Street College study of Chicago small schools, *Small Schools: Great Strides,* documented increased attendance in small schools:

> ...students attending small schools on average attended almost four or five more days of school per semester than students attending the average high school, after controlling for demographic differences.

Wasley, P. A., et al. *Small Schools: Great Strides—A Study of New Small Schools in Chicago*

Increased Student Achievement

According to the Northwest Regional Lab's review of research studies cited previously, students in small schools performed equal to or better than their larger school counterparts.

> About half the student achievement research finds no difference between the achievement levels of students in large and small schools, including small alternative schools (Burke 1987; Caldas 1987; Edington and Gardner 1984; Fowler 1995; Gregory 1992; Haller, Monk, and Tien 1993; Howley 1996; Huang and Howley 1993; McGuire 1989; Melnick, et al. 1986; Smith and DeYoung 1988; Stockard and Mayberry 1992; Walberg 1992; Way 1985). The other half finds student achievement in small schools to be superior to that in large schools (Bates 1993; Eberts, Kehoe, and Stone 1982; Eichenstein 1994; Fowler and Walberg 1991; Kershaw and Blank 1993; Miller, Ellsworth, and Howell 1986; Robinson-Lewis 1991; Walberg 1992). None of the research finds large schools superior to small schools in their achievement effects. Consequently, we may safely say that student achievement in small schools is at least equal—and often superior—to student achievement in large schools. Achievement measures used in the research include school grades, test scores, honor roll membership, subject-area achievement, and assessment of higher-order thinking skills.

Chapter 1 Aspirations, Issues, and Opportunities

Gladden, R. "The Small School Movement: A Review of the Literature"

Likewise, in a 1998 large-scale review of research, Gladden published similar findings. Compared with demographically similar students in large schools, the performance of poor and minority students in small schools was not only better, but "significantly better." Nine of the 11 studies reviewed found a consistent and often strong relationship between small school size and more equitable academic achievement across ethnic and socioeconomic backgrounds.

> The average achievement of students as measured by standardized tests tends to be higher in small schools than in large schools….[In particular], minority students and students from low socioeconomic backgrounds perform significantly better in small schools than in large schools.

Ancess, J., & Wichterle, S. W. *How the Coalition Campus Schools Have Reimagined High School: Seven Years Later*

In 1992 and 1993, New York City considered phasing out two of its lowest-performing high schools: Julia Richman and James Monroe, which had graduation rates of 36.9% and 23% respectively. Eight years later, after small schools had been created, which serve students "demographically comparable to those who attended the schools that were closed," the graduation rates in these schools were higher than the NYC high school average (52.3% compared to 50%), and dropout rates were substantially lower (10% compared to 18%). The study also found that small schools students were more likely to remain enrolled in school if they are unable to complete high school during a four-year period (38% compared to the 32% NYC average). Students in small schools attended college at a significantly higher rate (74.5%) than the NYC average of 58.1% of schools overall.

Increased Student Participation

Cotton, K. *New Small Learning Communities: Findings from Recent Literature.*

In her review of research, Cotton identified a number of studies which showed that as school size increases, opportunities for young people to participate in extracurricular activities decrease.

As Barker and Gump first noted in their 1964 study, levels of extracurricular participation are significantly higher in small schools than in large ones (Burke 1987; Cawelti 1993; Foster and Martinez 1985; Fowler 1995; Fowler and Walberg 1991; Grabe 1981; Hamilton 1993; Holland and Andre 1991; Howley 1996; Kershaw and Blank 1993; Pittman and Haughwout 1987; Rogers 1987; Schoggen and Schoggen 1988; Smith and DeYoung 1988; Stockard and Mayberry 1992; Walberg 1992). These researchers have also found that students in small schools are involved in a greater variety of activities and that they derive more satisfaction from their participation than students in large schools.

In a large school (over 2,000 students), only the most talented will be recruited for a sports team or a drama club. The result is that a small number of talented students dominate the sports and activity rosters, while the vast majority of students observe these activities or more likely ignore them. The community may take pride in elite level sports or performing groups, but the educational value of participation benefits only a select few. In small schools, sports teams, musical groups, and clubs depend on broader participation, thereby benefiting many more students.

The number of extracurricular opportunities does increase with school size. But a twenty fold increase in population produces only a fivefold increase in opportunities. That is, as the school expands, an increasingly small percentage of students are needed to fill the available slots.

Mitchell, S. "Jack and the Giant School"

Increased Student and Parent Satisfaction

Adults and students surveyed in model and start-up schools rated their schools significantly higher on measures of school climate (e.g., the degree to which schools exhibit close adult-student relationships and respectful interactions among students) and teacher professional community and

distributed leadership (e.g., the degree to which teachers share a common vision, work collaboratively, and participate in school management decisions) than did the adults and students in large schools that had not yet begun to convert.

Increased Positive Student Behavior

In an analysis done at the University of Minnesota on results drawn from the *National Longitudinal Study of Adolescent Health*, the researchers:

> learned that school connectedness is a powerful protective factor. Their research showed that students who feel connected to school:
> - · Are less likely to use alcohol and illegal drugs
> - · Are less likely to engage in violent or deviant behavior
> - · Are less likely to become pregnant
> - · Are less likely to experience emotional distress
>
> The optimal school size for increasing school connectedness is under 600 students. In small schools, teachers and school leaders can personally connect with most students, an impossible feat in a large school.

Blum, R. W. *The Untapped Power of Schools to Improve the Health of Teens*

Klonsky and Klonsky add:

> Not surprisingly, one of the immediate results of small-school restructuring is a reduction in violent or disruptive behavior on the part of students. Small schools teachers report a reduction in the number and seriousness of disciplinary infractions, which may be attributed to greater sense of ownership of school by children.

Klonsky, S. & Klonsky, M. "Countering Anonymity through Small Schools"

The Center for Collaborative Education observed a significantly lower suspension rate in small schools in Boston compared to other Boston Public Schools (see chart on following page).

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	Small Schools in Boston	Other Boston Public Schools
% of Students Suspended	0.83%	10.6%

A significantly lower rate for violent crimes was cited in a study by Gregory. "In urban schools with less than 300 students, 3.9% of the schools reported serious violent incidents compared with 32.9% of schools over 1,000 students."

More positive student behavior with respect to substance abuse was affirmed by the 2003 *National Survey of American Attitudes on Substance Abuse VIII: Teens and Parents*, an annual back-to-school survey conducted by the National Center on Addiction and Substance Abuse (CASA) at Columbia University. The survey showed that students at schools with more than 1,200 students are twice as likely to be at high risk of substance abuse than those at schools with fewer than 800 students.

Greater Focus on Students' Interests and Aptitudes

Small learning communities are frequently organized around a theme or career area. The research supports this type of focus. Although Gardner developed his multiple intelligences as a psychological theory, it has sparked a great deal of interest among educators throughout the world for its implications for teaching and learning. The application of multiple intelligences to education is a grassroots movement among teachers that is just beginning. An interesting development is the attempt to modify traditional curricula. Whether teaching history, science, or the arts, the theory of multiple intelligences offers teachers a number of different approaches to a topic, several modes of representing key concepts, and a variety of ways in which students can demonstrate their understandings.

Center for Collaborative Education. *How Are the Boston Schools Faring? An Analysis of Student Demographics, Engagement, and Performance*

Gregory, T. *School Reform and the No-Man's Land of High School Size*

National Center on Addiction and Substance Abuse. *The National Survey of American Attitudes on Substance Abuse VIII: Teens and Parents*

Gardner, H. *Extraordinary Minds: Portraits of Exceptional Individuals and an Examination of Our Extraordinariness*

As achievement in magnet schools and theme academies continues to rise, the research base grows richer to validate the premise.

The National Research Council (NRC) has found that when instruction is based on those interests and aptitudes and is appropriate to their learning styles, students are more motivated to learn. In the 1990s, as the call for teaching students how to use their knowledge began to capture the attention of academic educators and administrators, the NRC found that the academic performance improved for many students when they were taught in magnet schools or theme academies. Some districts created schools-within-a-school and alternative schools. On a small scale, authentic assessments and problem-based learning gained acceptance.

Relevancy Leads to High Achievement

Student interest translates into higher levels of achievement.

Small learning communities, particularly those designed around a theme or career area, are better able to focus on the needs of individual students than larger schools. Carefully planned instruction that is aligned with academic standards and taught in a context that interests students leads to greater relevance of instruction. When instruction is more relevant, it not only increases student interest, but also helps to deepen student learning through application. When students experience relevant applications, they are better able to retain skills and knowledge and demonstrate proficiency at a later time.

Frome, P. *High Schools That Work: Findings from the 1996 and 1998 Assessments*

One respected national curriculum effort in interdisciplinary instruction is High Schools That Work (HSTW), sponsored by the Southern Regional Education Board. This program encourages the adoption of practices that include incorporating academic skills in career and technical instruction, active student learning, and teacher collaboration. Research found evidence to support the hypothesis that meeting the curricular goals is related to meeting the achievement goals. A higher percentage of students in a school meet the achievement goals when more students complete integrated instruction. HSTW detailed research continues to show that teachers who use best practices in relating concepts to the real world contributes to higher student achievement.

Organizational Options for Small Learning Communities

Several different kinds of small learning communities are being established in schools, particularly high schools. With research overwhelmingly supporting the fact that students are more successful when they attend small schools, educational communities are turning to new organizational structures to support learning in small schools. Belief in the success of small learning communities is further evidenced by the financial support provided by public and private agencies to develop this new approach to learning.

Small learning communities may differ in size and structure, but they usually:

- are established with a small body of students who are taught by the same group of teachers
- share a designated physical space
- have an instructional theme

Most of the small school structures emerge from a larger organization within a building; however, some small learning communities are designed initially to be just that—small. These dedicated small schools have facilities that are deliberately structured to house smaller numbers of students.

The most common types of small learning community structures are schools-within-schools, house plans, magnet schools, and academies. In these configurations, the small learning community arrangement occupies its own space within a school or in a separate building. Under the house plan, students with varying abilities and backgrounds are grouped together. A house may consist of a single grade level, such as freshmen houses, or a 9-12 grade grouping. In this configuration, students stay with house members and teachers.

In the magnet schools and theme academies, students are clustered around a special focus area of interest. A magnet may consist of integrated academic

disciplines, such as a mathematics, science, and technology magnet, or focus on one academic area, such as a science magnet or performing arts magnet.

In academies, the special focus is generally a career area of interest. Some types of career academies include business and leadership, information technology, health services, engineering and design, and arts and communications. Students in magnet and career academy programs stay with the same teachers and group of students.

Schools-within-Schools

A school-within-a-school is a small autonomous program situated within a larger school physical plant. One school building may have several autonomous small schools within it. Students take all their classes within this school, and teachers teach all their classes within this structure. Students who are not in the school-within-a-school do not participate in any of those classes.

The school-within-a-school model allows for a high degree of personalization and student support because it encourages the development of sustained and continuous relationships between students and teachers. Sufficient time for collaborative planning is usually a characteristic of the school-within-a-school. This enhances the development of a strong community with a small professional learning community within that focuses on a common vision of high expectations, quality of teaching, and student achievement.

A school-within-a-school is responsible to the district and not to the administrative leadership of the larger school that houses it. This type of organizational structure provides the small learning community with the opportunity to develop its own culture and program of studies. The school-within-a-school is self-governing with its own leadership. Scheduling, budgeting, personnel issues, and professional development are controlled

by the leadership and staff of the school-within-a-school. The school-within-a-school has its own dedicated physical space in which to hold classes, and students and teachers are scheduled together and meet in this common area. A school-within-a-school may or may not have a curricular theme or set combination of courses for students.

House Plans

Under the house plan option, students in a large school are divided into smaller groups of students in the same grade or across grades. Students take all or most of their courses within the house, and teachers teach all or most of their classes within the house. Specific space may or may not be dedicated to the house.

The house structure allows for a high degree of personalization as students stay with house members and teachers. Students and teachers identify with the house and have an opportunity to build relationships within the smaller organization.

The impact of this design on curriculum and instruction is limited. The typical methods and levels of instruction take place. Students may also take coursework outside the house.

Vertical house plans refer to houses that serve students in grades 9 through 12 or grades 10 through 12. Typically, a school of 1,000 or more students is divided into groups (houses) of several hundred students.

Ninth-grade house plans are similar to the vertical model but only consist of ninth grade students. They are discussed separately as follows.

The house is under the administrative leadership of the school principal; it does not have autonomy from the larger school. Staff assigned to the house have limited control over the house's program and budget. The larger school determines the schedule and makes decisions about staffing, resources,

finances, and student makeup. Since the house falls under the jurisdiction of the larger school, most collaborative efforts are limited. Teachers do not necessarily have common planning time, and professional development is designed on a schoolwide basis rather than by the house alone.

Freshman Academy/House

A small learning community that is growing in popularity is the freshman house or academy. Organized like a typical house, the freshman house provides a place and structure for "newcomers" to transition to the school. Freshmen are kept together in their own physical setting. They share the same staff, who frequently team teach in the core academic areas. In this structure, freshmen find additional support and attention from staff and begin to recognize and value their high school experience as a pathway to higher education and careers. The freshmen house is an "adjustment place" that enables students to learn and experience gradually the additional responsibilities of a high school program.

Magnet Schools

The Magnet School Assistance Program (MSAP) is a federally funded program that supports school districts, through a competitive grant process, in developing and maintaining magnet schools.

Magnet schools are structured around a core area or a theme, such as technology, mathematics, science, or the arts. The specialty core or theme attracts students from the larger school district. The idea of magnet schools represents public choice in education and the desire to ensure equity and excellence for all students.

Originally, magnet schools were designed to desegregate schools without forced busing. Students and parents could choose to attend these schools rather than their neighborhood schools, which tended to be racially segregated. These magnet schools are open to interested district students, but they may have some restrictive admission requirements to maintain feasible enrollment. These restrictions may be based on "first to sign up," lottery, talent and achievement, and/or geographic location of the student's

home. Other magnet schools may have competitive admission requirements centering mainly on academic performance and demonstrated academic interest because of oversubscription to their programs.

The main small learning community characteristics of magnet schools are:

- designed around students' interests and academic strengths
- cultural diversity
- common focus

In some instances, magnet schools are separate schools within a larger district; in other instances, they may be contained within the physical structure of a larger school in a district. If the magnet school is separate, governance is autonomous. If the magnet school is within a school building, the program is governed by the leadership of the larger school.

Students in a magnet school take their core specialty or theme-based courses together. They may take other courses with non magnet school students.

Academies

Academies are generally schools-within-schools that are designed around occupational themes or the arts. Students experience many real-world applications of learning and participate in work-based learning programs. School-to-work elements are immersed in the academic programs of students in academies. The academy consists of a group of students who stay with the same teachers for two to four years, resulting in a personalized and supportive learning environment. The course of study provides high academic standards that are integrated within career-technical education (CTE) or arts education areas of study.

In the arts, for example, there are a variety of career focus areas. These may include audiovisual technology and communications, visual communications arts, commercial photography, graphic communications,

The Appendix/CD-ROM contains sample four-year sequences for academies in:
- health science
- engineering technology
- arts
- business
- information technology
- finance
- biotechnology.

telecommunications, journalism, multimedia production, and performing arts. Some typical examples CTE academies are: business and leadership, information technology, health services, engineering and design, and finance.

Within the academy focus area, students prepare for all levels of jobs. An academy should not limit a student's career or job options any more than taking a traditional high school program does. All students have the necessary courses to enter colleges. Student may choose to enter the workforce or to continue their education.

Business partnerships are a key component of the academy model. Business partnerships may provide related career shadowing, internships, work-study programs, student financial aid, equipment, and occupational information.

Each academy has a business advisory board, which works with educators to determine and update curricular offerings and provide advice on academy options. The focus of the academy is often determined by student interest, but local businesses and industries can play an important part in the implementation of a particular career academy, since related internship/apprenticeship programs and potential jobs are important aspects of the academy's offerings. Members of the advisory board or their respective businesses may teach, mentor, and/or tutor at the academy.

Students take the majority of their courses within the academy but may take some classes outside. Within this structure, teachers usually teach most of their classes in the academy and have collaborative planning time and time for academy-related professional development. The staff has some control over the program design; however, the academy coordinator or administrator usually reports to the larger school's principal. The academy's budget, schedule, and staff are determined by the larger school. Physical space may or may not be separate from the larger school context.

Parent Questions and Answers about Career Academies

Following are questions parents are likely to ask when a school is creating a career academy and some suggested answers.

Question: **What are the expectations of the students in the career academy?**

Answer: The expectations are only slightly different from any high school program. Students will complete all of the core academic courses required for graduation. Grading for these courses is no different. What will be different is the work that students will do in the core academic courses. While studying English language arts or mathematics, students will apply the skills they are learning to the career field. This is intended to increase interest in learning. Students will choose elective courses related to the career theme. Internships in the career field are optional but encouraged, because they provide additional learning opportunities and help students decide if they are truly interested in the career field.

Question: **How will this career academy be better than a regular high school program?**

Answer: First, this academy will be a smaller school in which students will be working with a small group of teachers. The goal is for these teachers to get to know the students better, understand their strengths and challenges, and provide them support in becoming successful in school. Second, the career academy helps students understand how core academic skills are important to the real world. The career academy also helps students explore their interests early on. Even deciding that they don't enjoy engineering or medicine is a good career decision. Making these decisions in high school is less costly than making them in the middle of a college program. The goal is to expose students to careers and still leave many options open to them.

Question: **What will be different instructionally in the academy program?**

Answer: The curriculum still connects to state standards, just like all the other programs. But in the academy, teachers are expected to relate what the student is learning to the career field.

Question: **What happens if students change their interest in the academy theme?**

Answer: Education in the career academy is broad and relates to a wide range of careers and job levels. Students will not focus on any single job preparation. However, if the student's interest does change, there are options. Students will have fulfilled the core requirements required of all students. To change to another career academy, the student must apply again and there must be space available.

Question: **If my son [or daughter] is in an academy, does that mean he [she] will not go to college?**

Answer: No, every student in the academy will have all of the necessary high school courses required for entry into college, including some advanced courses. Some students will apply to four-year universities; others may choose two-year colleges. The same range of options will exist for them as for all other students.

Question: **Do students have to go on to college in the same major as the career academy?**

Answer: No. The high school academy does not limit college choices to majors in the same field . Hopefully, though, the academy will give students an advantage when applying to colleges in a major similar to the academy.

Question: **Are the students expected to work in this field while they are high school?**

Answer: There is no required outside employment. The school is setting up internships for students who wish to do job shadowing or work in a job related to the career academy. However, while this is an option for students, whether a student works and the type of work are family and student decisions.

This Q&A is also in the Appendix/ CD-ROM.

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Other Options

Many varieties of school types and terminologies are used in reference to small learning communities. The following organizational structures may also be considered small learning communities:

Autonomous School — This refers to a building that is organizationally, fiscally, and instructionally independent from another school.

Focus or Theme-based School — This type of small learning community is designed around a theme in which both students and teachers share a common interest.

Alternative School — There are many definitions for an alternative school but it generally refers to a small school for students who have been suspended or expelled or who have experienced academic difficulties. The alternative school functions separately or as a school-within-a school.

Pathway — This term refers to a sequence of courses that are related — career and/or academic—and lead toward graduation and technical skill development. In a pathway approach, students may or may not be scheduled together. When they are, the students are taught by a team of teachers who plan and instruct together within the pathway. Students take most of their subjects but not all within the pathway. The pathway approach integrates academic and career education — what the students learn in their core academic classes is related to their career interest area.

Charter School — A charter school is a special form of public school that is usually small. This type of school operates under a contract that defines its program, function, instruction, students, teachers, and methods of evaluation. Charters may be administrated by educators, parents, community leaders, and/or entrepreneurs.

Common Structures

The Southwest Educational Development Laboratory provides data on the number of small learning community structures implemented by recipients of Small Learning Community grants. Career academies, freshman academies, house plans, and schools-within-schools are the most common structures that schools have implemented, according to data as of July 15, 2004.

Type of Structure in Use	Number of Schools Implementing This Structure
Career Academies	221
Freshman Academies	185
House Plans	69
School-within-a-School	53
Theme-based Academies	36
Magnet Schools	27
Sophomore Academies	19
Academies	6
Freshman Teams	4
Literacy Academies	4
Twilight Schools	4
Freshman/Sophomore Academies	3
Other	29

Creating Small Learning Communities

The following chart compares various small school options.

School Characteristics	Small School Options				
	School Within a School	House	Freshman Academy	Magnet School	Career/Theme Academy
Changes Affect Entire School	No	Yes	No	No	Optional
Scheduling Changes	Significant	Significant	Minor	Minor	Significant
Creates Autonomous School	Yes	No	No	Optional	Optional
Requires Change in Curriculum	No	No	No	Yes	Yes
Curriculum Taught in Context	Optional	Optional	Optional	Yes	Yes
Advisor/Advisee Program	Optional	Optional	Yes	Optional	Optional
Internships/ Job Shadowing/ Community Experience	No	No	No	Optional	Yes
Increases Number of Administrators	Yes	No	No	No	No

Characteristics of Small Learning Communities

Analyses of the success of schools in creating small learning communities show some common essential elements and traits that appear to be associated with the success of these organizational structures. Although downsizing alone does not bring improved teaching and learning, it does provide the conditions and setting for the occurrence of higher-quality instruction and student achievement. Some of the key elements found in small school structures that enable them to become improved learning communities include autonomy, identity, personalization, instructional focus, and accountability.

Autonomy

Small learning communities need broad decision-making authority to succeed. They maintain as much control as possible over space, schedule, budget, curriculum, instruction, and personnel. The schools function as though they are separated by miles from the larger school. The experience of autonomy nurtures a unique culture of dedication and commitment to the success of the learning community. Without autonomy, the small learning community staff cannot be held accountable for their decisions.

- *Separateness*—Students and teachers share a dedicated physical space consisting of contiguous rooms that are set apart from the rest of the building and that lend identification by place to the small learning community. Typically, a corridor, wing, or floor of a building is dedicated to the smaller unit. This provides a sense of common identity within the existing physical plant. Psychological boundaries are also created by this separateness. Students and teachers develop a sense of belonging to the small community rather than to the larger school that houses it. Separateness encourages students to focus on the smaller group of students with whom they come in contact. Students have a greater opportunity to connect with and feel a part of a school community.

- *Flexible Scheduling* — Small learning communities can make shifts in their schedules in response to student needs or to support more effective learning opportunities such as curriculum integration, common planning time, work-based learning experiences for students, longer instructional blocks of time, and varied groupings of students.

- *Budget* — Small learning communities have control over financial resources. Decisions regarding the use of funds are made by the staff. Thus, not only are staff members held accountable for their decisions, but they also have the freedom to realign resources to meet student and programmatic needs. Some budgetary matters that affect the larger

building still need to be controlled by the administration rather than by the small learning community.

- *Support from Stakeholders* — The small learning community usually has secured support from all stakeholders including teachers, students, parents, staff, site-based and district administrators, and the school board. The power that comes with autonomy is a clear definition of the support that the small learning community possesses.

- *Curriculum/Instruction* — Curricular and instructional decisions are more likely to impact teaching when teachers participate in these decisions. Shared decision-making is not unique to small learning communities; it is just easier to accomplish. In small schools, a greater number of teachers feel a part of decisions, which results in better implementation of curriculum changes. These decisions can be based upon school data and current research more easily since the size makes data more accessible and manageable, and current research can be tried, monitored, adjusted, and retried.

- *Personnel* — The teachers and students are autonomous and thus can create their own vision, rules, programs of study, expectations, and accountability systems.

Identity

A small learning community has established goals that create a sense of direction for teachers and students. These agreed-upon goals drive all decisions within the community and create conditions for teaching and learning that form part of the identity of the small school.

- *Vision/Mission* — When initiating a small learning community, individuals need to go through a process of creating a vision/mission statement that will guide and inspire those associated with the school

community. The community then has common goals based on students' needs and defined characteristics and attributes that give the school community a unique culture and identity.

- *Thematic Focus* — Small learning communities typically are organized around a curricular area, instructional approach, topic, or combination of these. This specialized curriculum might be an occupational cluster, such as agriculture; an instructional approach, such as project-based learning; or a broad curricular area or topic, such as science or aviation. Students and parents choose the small learning communities based on the area of focus. Thematic focus also means that the school does not attempt to provide a comprehensive scope to learning. Students have opportunities for depth rather than breadth in the areas of instructional focus.

- *Self-selection of Teachers and Students*—The identity of the small learning community serves to attract teachers and students. Participants are interested in the focus and are in concert with the community's vision and mission. A self-selected staff and student body results in a community that is cohesive and committed to common goals. The most successful learning communities are those in which the teachers and the students have chosen to be there. The choices of students and teachers are usually honored; however, attention is given to teachers' backgrounds and expertise and to heterogeneous grouping of students in the formation of the small school.

Personalization

The small learning communities capitalize on their downsized environment by implementing strategies that enable teachers to know all students well. Teachers can become knowledgeable about students' strengths and weaknesses, build relationship with students, and respond to individual needs of students more easily in a small school setting.

Creating Small Learning Communities

- *Support through Student-Teacher Relationships* **-** Strong relationships are critical to rigorous work for students. Students are more likely to make a personal commitment to engage in rigorous learning when they know that teachers, parents, and other students care how well they do. Students are willing to continue making the investment in their learing when they are encouraged, supported, and assisted — much in the same way that a personal trainer might encourage an exerciser who lacks the will or confidence to continue.

Smaller learning communities have greater opportunity than large schools to foster strong relationships among students, teachers, parents, and peers. Many small learning communities institute character education to develop such guiding principles as respect, responsibility, honesty, trustworthiness, compassion, loyalty, optimism, adaptability, courage, contemplation, initiative, and perseverance. A small learning community should not only talk about these traits but also actively practice them in the relationships between teacher and student. When guiding principles are deeply embedded in the school culture, it creates a climate of caring, support, and teamwork that directly impacts learning.

The level of relationships and student support is depicted on the framework below.

Relationship Framework for Students

5	Mutually Beneficial	Mutually supported leading to self-assurance
4	Enduring	Fully supported on continuing basis
3	Mentoring	Moderately supported
2	Assisting	Sporadically supported
1	Knowing	Minimally supported
0	Isolated	Unsupported

- *Student Involvement* — All students are given opportunities to participate in extracurricular and cocurricular activities and to become involved in their school. Involvement requires opportunities for students and encouragement by adults to participate and try new things. In small schools, teachers have more personal contact with students and can encourage students to become active in clubs and experiences that match their interests and aptitudes.

- *Teacher Continuity*—Teachers may stay with their students for multiple years of instruction. This gives the teacher a better understanding of the learner's strengths and weaknesses, and thus the teacher can create more personalized learning experiences for the learner. In some settings, teams of teachers remain with the same students over time. With the team approach, students are assured that they will be known by more than one adult, and both students and teachers are more likely to respect and support each other. Some examples of extended time with the same teachers/students are looping, teaming, teacher advisories, and mentoring activities.

- *Parent and Community Involvement* — Parent and community participation is both needed and easier to achieve in a small learning community. Sometimes, parents are the driving force for establishing the small learning community and play an active role in the school's governance. Parents as well as students respond favorably to the more personalized nature of the small learning community. The instructional leaders actively support and engage parents and community members in the schools. The career academy option of a small learning community is particularly dependent on community involvement for success. As part of its structure, a career academy has business and community partners and provides work-based learning experiences.

Instructional Focus

In small learning communities, everything centers on student achievement. There are high standards for all students and an emphasis on improved student performance.

Schools that Say "Welcome"

Use this checklist to evaluate your school's relationship with parents. Does your school say "welcome" in every aspect of the school culture?

YES NO

❑   ❑   Office staff greets visitors in a friendly, courteous way.

❑   ❑   When parents pass staff in the hallways, they are greeted warmly.

❑   ❑   Staff members offer assistance if anyone appears lost or is new to the school.

❑   ❑   Teachers, staff and students answer the telephone in a friendly, professional way.

❑   ❑   A welcome sign (in all common languages of the community) and school map are displayed near the entrance.

❑   ❑   There is an area where visitors can easily find information about the school and curriculum.

❑   ❑   The school holds regular social occasions or events where parents and school staff can get to know each other.

❑   ❑   An orientation program is provided for new families in the district.

❑   ❑   Parents are welcome at all times in the school building and classrooms.

❑   ❑   The community uses the building frequently for planned events.

Chapter 1 Aspirations, Issues, and Opportunities

YES NO

❑　❑　Translated signs and materials as well as translators are available for parents with limited English in order for them to understand the curriculum and participate in activities.

❑　❑　Information about school rules, parent-teacher conference, school and classroom policies, and bus and lunch schedules is available to parents/guardians.

❑　❑　A resource center exists for parents and teachers that has comfortable furniture. It provides parenting information and has support available (e.g., copy machine, computer, desk) for parents' school-related activities.

❑　❑　There is a bulletin board on which parents can post news and announcements.

❑　❑　The library is accessible to parents.

❑　❑　Principal and staff are willing to listen to parent/guardian concerns about issues.

❑　❑　Volunteers are visible, offer greetings, and are knowledgeable about the school.

This checklist is in the Appendix/CD-ROM.

❑　❑　Security staff members, if present, are friendly in carrying out their duties to identify visitors.

❑　❑　There is ample and convenient parking available for parents when they visit the school.

- *Focus on Student Learning* — Instruction is centered on student results. The emphasis is on high expectations and improved achievement for all students. As evidenced in the early Effective Schools research, schools are more successful when there is an emphasis on higher achievement for all students. Along with the personalization and individual support, teachers provide the "academic press" needed to get students to higher levels. Rigor and relevance are equally as important as support and caring.

- *Heterogeneous Grouping* — In small learning communities, there is less tracking of students academically. Teachers are able to assist students who might have been placed in a low track in a comprehensive high school. In small learning communities, individual needs are met through the use of flexible groupings, individual conferencing, and frequent anecdotal evaluations. All students are better served with heterogeneous grouping.

- *Professional Development and Collaboration* — Time is usually provided for teacher collaboration and planning, which are critical elements in instruction. Teachers often work in teams to improve their teaching strategies, share instructional techniques, exchange valuable information about students, and learn with other teachers through action research in a true professional learning community. Typically, the professional development opportunities are teacher designed, specific to the small school, and aligned with its vision/mission and goals. Professional development opportunities also exist among various small learning community networks; these help the small schools understand their common strengths and challenges.

  All schools are more focused on learning when there is a higher degree of collaboration among teachers. The Relationship Framework for Teachers that follows indicates the levels of relationship as they relate to teacher collaboration. Small learning communities have the opportunity to measure their progress in developing higher levels of teacher collaboration.

Relationship Framework for Teachers

5	Mutually Beneficial	Work as balanced community toward school goals
4	Enduring	Collaborate on an ongoing basis
3	Mentoring	Planned collaborations at a moderate level
2	Assisting	Sporadic examples of collaboration
1	Knowing	Minimal collaboration
0	Isolated	Work in isolation

- *Integrated Curriculum/Team Teaching* — Small schools offer a solid core curriculum, usually designed around the school's theme or focus. Teachers generally identify less with a teaching specialization area and more with teams to work with groups of students over extended time periods, particularly when working with students on various learning projects. The ability to work in teams and have flexible scheduling options enables schools to provide an interdisciplinary approach with greater depth of understanding. Since students and teachers remain together over time, the curriculum becomes cohesive as well; the student experiences a continuum of learning across grade levels and subject areas.

- *Large Repertoire of Instructional Strategies* — In the small learning community, instruction is tailored to the needs of the individual student. Thus, teachers use a variety of instructional strategies to meet the learning styles, deficiencies, and strengths of their students. By using a variety of teaching methodologies, teachers ensure that all students are provided with a rigorous curriculum and given an opportunity to respond to instruction. In small schools, it is more feasible to use instructional strategies such as project-based learning, Socratic seminar, inquiry learning, and work-based learning to engage learners.

Accountability

Students and teachers in small learning communities are held accountable for demonstrating competencies on state, local, and schoolwide assessments. Success toward reaching the goals and mission of the small learning community is also measured. In the small school structure, teachers demonstrate the accountability indicator of commitment and collective responsibility toward every student's academic success.

- *Detailed Planning* — Detailed planning is essential for the start-up of a small learning community. Successful small learning communities have engaged in a tedious planning process that involves all stakeholders and addresses many components of the school, such as the instructional program, assessment plans, recruitment, admission and acceptance/rejection processes, budget, scheduling, governance, parental involvement, staffing, hiring and firing procedures, administrative guidelines, disciplinary procedures, and others. The plan needs to be open to amendment based upon ongoing needs assessments and students' successes.

- *Multiple Forms of Assessment* — Small learning communities administer all the required standardized tests, but they also require student to demonstrate their learning. To determine what students know and can do requires more than short-answer test questions. In small learning communities, students engage in performance-based assessments that reflect personalized learning. Teachers use multiple indicators and multiple assessment instruments to measure students' continuous progress. Assessment data is also used as a factor in determining school success.

- *Total Implementation of Key Small Learning Community Elements* — To be successful, a small learning community needs to implement as many of the elements of the successful small school as possible. The true small learning community is much more than just a reduction in the size of the student population; it represents a variety of characteristics that are implemented as quickly as possible and in

concert with the school's vision/mission. To be effective, the small learning community needs to have the elements implemented at initiation; change should not be introduced on a piecemeal basis.

- *Networking with Other Small Learning Communities*—To share ideas, encourage continuous growth, recognize weaknesses, and overcome barriers to success, members of small learning communities network for professional growth and development. Networking with similar school structures provides support and enables schools to learn from and avoid each other's mistakes while replicating successful practices.

Common Strategies Found in Small Learning Communities

Alternative Scheduling

Various scheduling techniques that allow teachers to develop lessons to meet student learning needs and to provide longer instructional blocks of time are implemented by small learning communities. Extended class time enables teachers to cover content in-depth, provide real-world applications, and incorporate time-consuming strategies into instruction, such as project-based learning and work-based learning. Alternative scheduling also permits community and business representatives to support learning during the school day. It is easier with alternative scheduling to provide tutoring and allow some students to spend additional time on areas needing improvement, while other students devote time to in-depth learning. The schedule does not control teaching and learning; the needs of the learner determine the schedule.

Freshman Transition Activities

A special focus on the ninth grade eases the transition from middle school to high school and helps identify students who need additional help to succeed in high school. Typically, freshmen will have their own house setting or academy. Within this small learning community, extra support services are provided. Students may be assigned a mentor from an upper grade. Programs of studies may include a career exploration course to reinforce the idea that high school is the path to college and careers.

Teacher Advisory Systems

It is common for small learning communities to assign small groups of students to a teacher advisor. The teacher meets regularly with the students during an advisory period and may also meet one-on-one with students. This subgroup of the small learning community is devoted to assisting students to develop good study and work habits, become acclimated to the school and its rules, create personal learning plans, select and schedule courses, work on postsecondary plans and employability skills, and become familiar with career opportunities. In many ways, the teacher advisory system is an extension of the guidance program. Its intent is to provide students with academic, career, and personal guidance.

Adult Advocacy Systems

The adult advocacy system is similar to the teacher advisory system. It ensures that each student has an advocate — someone who knows him or her well and cares about the student's well-being and success. The adult advocate meets with students individually or in small groups on a regular basis to provide academic, career, and personal guidance and to match the student with needed resources. For this program to be successful, the adults who serve as advocates need training on their roles and responsibilities.

Parent Outreach

Small learning communities put forth extra effort to engage and involve parents. Parents are viewed as essential in assisting students with their academic progress. Partnership liaisons and individual contacts are techniques used to include parents in student goal setting and attainment.

Academic Teaming

In academic teaming, teachers are organized across departments in a team. They share the same students and are responsible for the curriculum, instruction, evaluation, and sometimes scheduling of their students. The team has common planning time and usually teaches in the same physical location within the school. Teaming adds to the personalization of the small learning community environment. Together the team focuses on each student's progress. Strengths and weaknesses across disciplines are identified. With teaming, it is easier to focus on the "whole" student.

Small Learning Community Initiatives and Resources

The trend to small learning communities is an evolution of many education initiatives. While the identifying label "small learning communities" is relatively new, the strategies have been around for many years. School leaders seeking to build on the experience of others will find many resources to explore for ideas. Some of the initiatives are new; others have long-established credentials for creating outstanding school programs.

The initiatives are listed in alphabetical order.

The following initiatives are provided for schools that are looking to begin small learning communities. Some of the resources are directly identified with establishing small learning communities while others possess one or more of the key elements for creating small learning communities. Some also provide opportunities to participate in networks. All have experiences that can be valuable to those just starting out.

Bill & Melinda Gates Foundation

Bill & Melinda Gates Foundation
Education Programs
PO Box 23350
Seattle, WA 98102
(206) 709-3607
edinfo@gatesfoundation.org
www.gatesfoundation.org/Education/

Creating Small Learning Communities

The Bill & Melinda Gates Foundation was created in January 2000 and has an endowment of approximately $24 billion through the personal generosity of Bill and Melinda Gates. Education initiatives in the foundation have funded hundreds of millions of dollars to networks of schools working to create small learning communities. The financial contribution of this foundation has significantly expanded the number of initiatives around the country focused on creating small learning communities.

Career Academy Support Network
Graduate School of Education
University of California at Berkeley
Berkeley, CA 94720-1670
(510) 643-5748
ask_casn@uclink.berkeley.edu
http://casn.berkeley.edu/index.hml

Career Academy Support Network

Career Academy Support Network (CASN) is based at the University of California at Berkeley. The project fosters the growth and improvement of career academies and other small learning communities, which many high schools are using to prepare students for college and careers. Several foundations fund CASN, and it has a contract in the U.S. Department of Education. It works directly with a variety of high schools and districts around the country, providing professional development leadership and materials. It also gathers research information of use to those interested in implementing or studying career academies.

Institute for Educational Leadership
1001 Connecticut Ave. NW, Suite 310
Washington, DC 20036
(202) 822-8405 ext. 167
ccs@iel.org
www.iel.org
www.communityschools.org

Coalition for Community Schools

Chapter 1 Aspirations, Issues, and Opportunities

The Coalition for Community Schools works toward improving education while supporting and strengthening their families and communities. A community school is a place and a set of partnerships that mobilizes an array of community resources — education, youth development, early childhood development, family support, health and human services, family and community engagement, community development- and connects them to student learning and development. Characteristics of community schools are similar to the goals of many small learning communities.

Coalition of Essential Schools

Coalition of Essential Schools
1814 Franklin St., Suite 700
Oakland, CA 94612
(510) 433-1451
www.essentialschools.org

In 1984, a group of twelve schools in seven states agreed to redesign themselves on the basis of Ted Sizer's ideas and to form what became known as the Coalition of Essential Schools (CES). The CES common principles soon caught on among scores of schools around the country which led to the founding of CES regional centers offering direct support to schools in the areas of school design, classroom practice, leadership, and community connections. CES, working the Bill & Melinda Gates Foundation, has recently created the Small Schools Project to create new CES high schools, improve existing high schools, and form a network of 20 "mentor schools."

Early College High Schools

Jobs for the Future
88 Broad St., 8th Floor
Boston, MA 02110
(617) 728-4446
kdarce@jff.org
www.earlycolleges.org/Index.html

Creating Small Learning Communities

The Jobs for the Future organization works in partnership with the Bill & Melinda Gates Foundation and other foundations to promote Early College High Schools. These are small schools from which all students graduatewith an Associate of Arts degree or enough college credits to enter a four-year, baccalaureate program as a college junior. Early College High Schools share the characteristics of effective small schools (e.g., personalized learning environments, a common and coherent focus, a maximum of 400 students per school, an emphasis on adult-student relationships). Early College High Schools include dual enrollment in high school and colleges and reward mastery and competence with enrollment in college-level courses during high school.

High Schools That Work

Southern Regional Education Board
592 Tenth St. NW
Atlanta, GA 30318
(404) 875-9211
scott.warren@sreb.org
www.sreb.org/programs/hstw/hstwindex.asp

The mission of schools in the High Schools That Work (HSTW*)* network is to prepare high school students for both postsecondary education and a career by having students complete a solid academic core and either an academic, career/technical, or blended concentration. HSTW began with 28 sites in 13 states when the Southern Regional Education Board State Vocational Education Consortium started it in 1987. Since then it has grown to more than 1,100 sites in 27 states. The program has key principles that promote the teaching of academic skills in context. It has collected evidence of the effectiveness of this approach and provides extensive professional development for participating schools.

Magnet Schools of America

Magnet Schools of America
733 15th St. NW, Suite 330
Washington, DC 20005
(202) 824-0672
Fax: (202) 638-7895
Dr. Robert G. Brooks, National Director
nationaldirector@magnet-dc.org
www.magnet.edu

Magnet Schools of America (MSA) is a professional association of individuals, schools, and/or school districts to promote goals of desegregation, equity, and excellence through the expansion and improvement of magnet schools. It advocates at both the state and national levels for the development and improvement of magnet schools. The association promotes networking among magnet schools and acts as a national clearinghouse for information dissemination on magnet schools.

National
Academy
Foundation

National Academy Foundation
39 Broadway, Suite 1640
New York, NY 10006
(212) 635-2400
www.naf.org

The National Academy Foundation (NAF) sustains a national network of high school career academies in finance, travel and tourism, and information technology, NAF academies represent business/school partnerships that prepare young people for future careers through a combination of school-based curricula and work-based experiences. Each of the nearly 600 NAF academies operates as a "school within a school." The academy can be a two-, three-, or four-year program to supplement and enrich the traditional curriculum. NAF academies are targeted to schools in the nation's urban centers but are appropriate for and thrive in urban, suburban, and rural areas where businesses exist alongside the schools. NAF provides technical assistance in planning, professional development, curriculum, and promoting business partnerships. Many small learning communities that adopt career themes are using NAF models and curriculum materials.

National Consortium
for Specialized
Secondary Schools in
Math, Science and
Technology

National Consortium for Specialized Secondary Schools in
Math, Science and Technology
3020 Wards Ferry Rd.
Lynchburg, VA 24502
(434) 582-1104
clindema@cvgs.k12.va.us
www.ncsssmst.org/

The goal of the National Consortium for Specialized Secondary Schools in Math, Science and Technology (NCSSSMST) is to foster, support, and advance the efforts of those specialized schools whose primary purpose is to attract and academically prepare students for leadership in mathematics, science, and technology. NCSSSMST was established in 1988 to provide a forum for schools to exchange information and program ideas and to evolve alliances between them. There are currently 80 institutional members (secondary schools), representing more than 35,000 students and 1,400 educators. These are joined by over 100 affiliate members (colleges, universities, and corporations) who share the goals of transforming mathematics, science, and technology education. NCSSSMST holds a fall student conference and a spring professional conference, both hosted by member institutions. Publications include a seasonal newsletter, biannual journal, and booklet profiling member institutions.

New England Small Schools Network

The Center for Collaborative Education
1 Renaissance Park
1135 Tremont St., Suite 490
Boston, MA 02120
(617) 421-0134
info@ccebos.org
www.nessn.org

The Center for Collaborative Education assists New England and upstate New York school districts through the New England Small Schools Network (NESSN) to start up new small secondary schools or to divide large comprehensive schools into small, autonomous schools. The center will assist in the creation of up to 35 new small schools over the next five years and operates as a clearinghouse of information and resources on the small schools movement.

Northwest Regional Educational Laboratory

Northwest Regional Educational Laboratory
101 SW Main St., Suite 500
Portland, OR 97204
(503) 275-9500
shaughnj@nwrel.org
www.nwrel.org/scpd/sslc/

The Northwest Regional Educational Laboratory (NWREL) provides research and development assistance to education. It maintains a Small Learning Communities Program Web site with recommendations, publications, and research that helps large high schools of 1,000 or more students to create small, more personalized learning environments.

Project Lead The Way

Project Lead The Way, Inc.
747 Pierce Rd.
Clifton Park, NY 12065
(518) 371.7528
mail@pltw.org
www.pltw.org

Project Lead The Way (PLTW) is a national program to increase the quantity and quality of engineers and engineering technologists graduating from our education system. For small learning communities considering a career academy related to engineering or technology, PLTW offers a project-based learning curriculum and staff development in engineering related fields. The PLTW curriculum reflects the diversity of engineering fields, including electronics, communication, transportation, environment, construction, and biotechnology.

Small Schools
Workshop

Small Schools Workshop
University of Illinois at Chicago
1640 W. Roosevelt Rd, 6th Floor
Chicago, IL 60608
(312) 413-8066
ssw@uic.edu
www.uic.edu/depts/educ/ssw/

The Small Schools Workshop is based in the College of Education at the University of Illinois at Chicago and collaborates with teachers, principals, and parents to create new, small, innovative learning communities in public schools. The Small Schools Workshop actively explores the larger issues

of education reform, with a particular focus on the role that small schools can have in furthering positive whole school and systemic change. This program provides technical assistance, professional development, references on their Web site, and a Listserv.

Successful Practices Network
International Center for Leadership in Education
1587 Route 146
Rexford, NY 12148
(518)-399-2776
debby@leadered.com
www.succesfulpractices.org

Successful Practices
Network

The Successful Practices Network is a membership organization, sponsored by the International Center for Leadership in Education, designed for good schools that want to be great schools. The network provides a mechanism to share data, experiences (both successful and less than fully successful, if instructive), technical assistance, and best practices with one another. Members can seek peer and expert advice on school improvement from like-minded schools and education leaders. Included among the best practices are efforts to add rigor and relevance to instruction, strengthen reading instruction in content areas, align teaching with priority standards, develop character education, and integrate academic skills with career and technical education and the arts — all effective practices in building small learning communities.

Chapter 1 Aspirations, Issues, and Opportunities

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Chapter 2 Staff, Students, and Stakeholders

Leadership in Small Learning Communities

T he implementation of small learning communities requires schools to make significant changes. If the small learning community or communities will be established within a comprehensive high school, the biggest question affecting staff is who will lead the small learning community.

The key ingredient to any school improvement model is strong leadership, which is not held only at the administrative level.

- Will a principal administer the entire high school and will assistant principals oversee each house or other subgroup?
- Will a coordinator be appointed for each academy or will a principal lead each one?
- What happens to the assistant principals currently working in the large high school structure?
- Will department chairpersons have leadership positions over individual discipline areas?
- Will there be lead teachers at various grade levels?

These are real concerns of staff as a school or district takes the initial steps in the governance of the small learning community. Changes in roles and responsibilities for almost all staff members will occur, but the leadership issue needs to be addressed in the early planning stages of implementing small learning communities. The identified leaders can then assume the important role and associated responsibilities of directing the development of the initiative.

A school leader who shifts to a small learning community will likely need to spend more time in instructional leadership, shared decision-making, and parent and community involvement.

There is frequently a coordinating curriculum theme for the small learning community and an increased importance in parent and often community involvement. A school leader who shifts to a small learning community will likely need to spend more time in instructional leadership, shared decision-making, and parent and community involvement.

Leadership Structures

Individual School Principals

Strong leadership of the small learning community may be difficult to achieve if the leader does not have the title of "principal." As a result in some small learning communities, each smaller unit is a true school and has its own principal. Hence, if a large school is divided into four smaller communities, it may change its leadership structure from one principal to four separate principals. This structure increases the number of principals needed. It also helps to create and strengthen the separate identity of each small learning community. Each principal will usually report directly to an executive principal or a district-level leader.

The principal may or may not be supported by an assistant principal, depending on school size and roles of other staff. The change to small learning communities can sometimes decrease the total number of assistant principals in a district. This outcome can affect the development and succession process for principals in the district and should be figured into the value equation of the most desirable structure.

Principal with Academy Leaders

In some small learning communities, a principal oversees the daily operation of the building at large, and assistant principals or directors serve as academy leaders. Management of the small learning community is shared between the principal and the academy leader. In this model, the academy leader frequently supervises all aspects of the academy operation including staffing, scheduling, curriculum, discipline, budgets, social activities, and student government. The principal oversees the functioning of all the individual small learning communities within the building. The leaders of each academy are responsible to the building principal.

Principal with House Administrators

In the house plan structure, the responsibilities of administrators may be limited in comparison to models that create small learning communities as separate schools or academies. The house administrator oversees the discipline, student activities, and everyday operation of the house but exerts less influence over staffing, budget, curriculum, and scheduling, which fall under the responsibility of the school principal.

Other Leadership Roles

Building Coordinator

If there are multiple independent academies within a single school building, issues over the use of shared facilities such as libraries, cafeterias, auditoriums, gymnasiums, and so forth can easily arise. Schools that have implemented small learning community structures often designate one person to supervise staff and logistics in facilities that are not assigned to individual academies. Successful models also require the principals or other leaders from each of the small learning communities to meet to schedule shared facilities and resolve conflicts. The building coordinator may be at a leadership level equal to the principals, but he or she would not be supervising the principals.

Assistant Principals

The title "assistant principal" is used to define many different roles in schools. Some assistant principals work closely with the principal in all school decisions. Others may handle discipline, have a subject department leadership role, or work with a specific grade level. Converting to small schools will likely change some or all of these positions. Depending on the existing structure, these assistant principals may convert to leadership roles in the small learning communities with the same or a different title. One

caution is that if the conversion to small schools increases the number of principals and reduces the number of assistant principals, then there may be difficulty in principals assuming their full leadership role. For example, if in an existing structure, an assistant principal primarily handles student discipline, then the principal in the new structure might be consumed with discipline issues and find little time to provide to instructional leadership.

Lead Teacher/Coordinator

Some small learning community structures, especially those without assistant principals, have a lead teacher or coordinator who assumes responsibility for certain day-to-day activities. These may include facilitating staff meetings, orienting new teachers, establishing partner relationships, managing professional development, handling supplies and the budget, addressing curricular issues, and coordinating with the other administrators. The lead teacher carries a reduced teaching load to provide time for the coordinating responsibilities. This individual may be appointed by the house/academy administrator or selected by his or her peers. The lead teacher position can be filled by any teacher who is willing and able to take on the additional responsibilities. The role provides the teacher with an excellent opportunity to develop leadership skills and may provide additional compensation.

Department Chairpersons

The typical structure of the small learning communities — teachers working together in cross-disciplinary teams — lessens the need for the departmental structure and department chairperson. The small learning community teams hold regular staff meetings, make curricular decisions, and share common planning time. Thus, the need for departmental meetings may not be as great. However, there is still the need for and value in sharing professional information within a discipline across grade levels, programs, and small learning communities. Accordingly, the traditional subject department chairperson's role and responsibilities may change rather than be eliminated. The departments become a supporting structure to the small learning community teams. There may not be a chairperson for subject areas.

Many of the responsibilities of the department chairpersons are similar to those of the lead teacher/principal in a small learning community. Thus, a chairperson may become the lead teacher in a small learning community in which the theme or focus relates to that person's discipline. One of the considerations in converting to small learning communities is the impact on district subject leadership. If department chairperson roles are eliminated, teachers may look for more support from district staff, since they do not have a perceived subject-area leader in the school.

Shared Leadership and Teacher Teams

In small learning communities, many more people than just the administrator are in positions to make decisions and bring about change. Governance structures often involve all members of the community — teachers and staff, parents, community members, administrators, and even students. Representatives of these various stakeholder groups serve on the major governing committees of the school and work collaboratively toward reaching the school's goals. Some small learning communities form teams that have specific areas of responsibility, such as discipline, leadership, and academics. These teams meet regularly and provide advice and make recommendations to the small learning community.

Most teachers in small learning communities play a much greater role in planning and making decisions than in other school structures. For example, teachers participate in developing curriculum, selecting students, integrating curriculum, and organizing the school-within-a-school structure. In career academies, teachers also frequently formulate and manage the business and community partnerships.

Summary

There is no one leadership structure to fit all small learning communities. The structure must meet the needs of the school/academy. What is common

to all small learning communities is the degree of autonomy, influence, and responsibility that each school/academy has for its own community, shared decision-making among the members, and a team approach to instruction and meeting the needs of learners.

Types of Teams

In most small learning communities, teams are used to address the vision and goals of the academy/school and to support the intent of the small learning community structure. Small learning communities are characterized by shared leadership. A small learning community usually creates a governance structure that uses a higher degree of shared decision-making than conventional schools, thus reflecting the overall mission and spirit of the small learning community.

Small learning communities typically establish decision-making groups such as the one listed following, but none of the teams function independently or make arbitrary decisions that impact other teams' areas of focus. Some areas of responsibility, such as hiring and evaluating staff, may fall under the sole jurisdiction of a team, but these areas tend to be few.

Design/Comprehensive Planning Team

This team usually consists of representation from all stakeholder groups. This team identifies what the small learning community believes, knows, and wants to do for all the learners in the school. This team's responsibilities are ongoing, with an intended outcome of constantly improving the small learning community. The decisions of this team are based upon utilization of data and team evaluations of school results are assessed on a regular basis.

Small learning communities are characterized by shared leadership.

Leadership Team

Depending on the organizational structure of the small learning community, the members of this team may include the principal, assistant principals, academy principals, coordinators, and lead teachers. The leadership team is responsible for the overall management and operation of the small school and its success. Areas typically addressed by this group include schoolwide policies such as discipline and attendance, budgets, hiring staff, and evaluations.

Whole Faculty Team

As the title suggests, this group represents the entire teaching staff. It meets periodically to discuss and make decisions in areas that affect the entire school community. Typically, agenda items are brought to this group from one of the other functioning teams. An example of something that this team would make a decision on would be a change in the school's schedule.

Academic or Curriculum Instruction and Assessment Team

The members of this team collectively represent the core academic areas of instruction: English language arts, mathematics, science, and social studies. These teachers teach and are responsible for the learning of the same group of students across the core academic subjects. The commonality of students and teaching assignments provides the team members with a far greater understanding of students and instructional goals. Opportunities for common planning time to enhance academic synergies across disciplines are usually provided to this team. During its meetings, this group not only discusses students and their needs, but also reflects on and develops common instructional practices that are most effective in achieving improved student results. The teachers also spend time improving their own practice through peer observations and sharing of best practices.

The academic team also engages in action research in which each member explores, discusses, tries out, and evaluates ways to improve teaching and

learning. Team members work collaboratively to enhance the facilitation of learning with students. Through the academic teams, teachers experience a sense of support and a degree of accountability from and to their peers. Success is easier to achieve since the teachers are closely associated with one another in their attempts to meet the needs of their students. Common decisions made by this group include student expectations, textbook and resource selection, instructional technology support, curricular requirements, instructional practices, student assessment requirements, student placement, and professional development activities.

Academic teams may better serve their students with the inclusion of a guidance counselor and special education teacher. Guidance counselors who are familiar with the vision, goals, and expectations of the small learning community can better serve the interests and capacities of their students. Students bring the context of the small learning community to the guidance service; this is particularly true in career academies. As part of the academic team, counselors can better respond to students within that context. Likewise, since special needs students are members of the small learning community/academy, inclusion of a special education teacher on the academic team will enhance the support given to special needs students.

Professional Study Groups

Another term for this type of team is "professional learning community." Teams of teachers meet to work on specific topics related to instruction, assessment, and student learning. This group promotes action that is research-based. The members select an area or a question for study that is site-based. Data related to the question or area of research is gathered, analyzed, and tested. Team members inform and improve their practice through this structure of ongoing dialogue, reflection on practice, and research.

Discipline-based Teams

This group's constituency is teachers in a specific discipline. This often is the equivalent and outgrowth of the department structure in the large,

comprehensive school organization. Members of this team focus on such areas as best practices within the discipline, curricular alignment with standards, subject-specific curriculum, and identification of instructional resources. This team enables educators to continue to grow in their own discipline while teaching and interacting on a daily basis in an interdisciplinary approach to instruction.

Leadership Support of Teams

All of the types of teams described previously need support from the small learning community's leadership. Depending on the team and its work, this might come from several sources: district, building, small learning community, or the team itself. It is very helpful if the district institutes an overall learning community so that constituent groups can work together. This overarching culture can be created by ensuring that trust and open communication, as well as common understanding of expected outcomes — "how we will do business"— is established among all members. Leaders need to ensure that teams are collaborative (member teachers have styles that are complementary) and mutually supportive and that open communication lines exist based on a common vision and shared view of instruction. Leadership must provide for common planning and meeting time, be willing to "share" leadership, and know when it is appropriate to do so. Finally, and most important to the sustained growth and success of the small learning community, leadership must ensure that all members of the learning community are learning.

Group Norms

Norms are shared values and procedures for working together that are established by team members to guide and sustain its collaborative work. Setting norms and ensuring adherence to them are the responsibility of all team members. If norms are not respected, team members need to remind others of the ground rules that were agreed upon to ensure effective team functioning.

Creating Small Learning Communities

Areas about which groups usually establish norms include:

- Logistics — location, time, length, and frequency of meetings
- Interpersonal Communications — respect for one another's opinions, ability of everyone to participate, responsibility to listen attentively to others, conflict resolution practices, and shared responsibility for the work of the team
- Time — starting and ending meetings on time, and team members' responsibilities to attend and stay for the duration of the meeting
- Decision-making Processes — procedures identified and implemented for making decisions, including which type of process will be used for various types of decisions
- Team Responsibilities — responsibilities identified and shared by all members
- Team Roles — roles clearly defined and placement determined; for example, will a team leader be appointed, elected, rotated, and so forth

Refer to the information sheet on Team Roles in the Appendix/CD-ROM for definitions that could be shared with team members.

Some examples of group norms are:

- Meetings will start and end on time.
- All opinions will be heard.
- Only one person will speak at a time.
- Decisions affecting the entire small learning community will be made by consensus.
- Changes in the meeting agenda will be by majority vote.
- All team members will be responsible for the work of the team.

Also in the Appendix/CD-ROM: Team Problem-Solving Form, Effective Decision-Making Checklist, Effective Meetings Checklist, and Meeting Roadmap

Norms should be posted at each meeting, and the team members should reflect on them at the end of the meeting, especially in early meetings or when procedures are reviewed from time to time. Ask: Were the norms met? Do any norms need to be changed? Do any norms need to be modified? Creating an approach to work together that is rooted in mutually agreeable ground rules enables a team to be more productive and enhances the team members' motivation and enthusiasm for working with one another.

Team Problem-solving Form

Identify one problem on which the team will focus in a regular team meeting. List the data used to define the problem. Then brainstorm actions to take and the data that will be used to evaluate the effectiveness of actions taken.

Identified Problem

Data to Identify Need

Actions to be Taken

Data to Measure Results

Effective Decision-making Checklist

Use this checklist to evaluate the effectiveness of your decisions.

Yes **No**

❏ ❏ Everyone was familiar with the decision method being followed; e.g., consensus, majority vote.

❏ ❏ Enough time was devoted to the item.

❏ ❏ The facilitator was objective and open-minded in facilitating discussion of the item.

❏ ❏ The item voted on was clearly stated and understood.

❏ ❏ The item voted on related to a measurable goal.

❏ ❏ All ideas were considered and modified as appropriate.

❏ ❏ More than one solution was explored before a decision was made

❏ ❏ Everyone had an opportunity to raise questions, give their opinions, express their agreement/disagreement.

❏ ❏ Members with disagreeing opinions were given time to express their concerns, hesitations, and dissenting thoughts.

❏ ❏ If consensus agreement was used, all team members were supportive of the decision.

Effective Meetings Checklist

Use this checklist to evaluate the effectiveness of your meetings.

Yes	No	
❏	❏	An agenda was prepared and distributed before the meeting.
❏	❏	Members arrived on time for the meeting and stayed until the meeting's closure.
❏	❏	The meeting started and ended on time.
❏	❏	The facilitator was prepared and managed the team's processes.
❏	❏	The team focused on the topics under discussion.
❏	❏	The team's work was clearly defined, had purpose, and related to overall goals.
❏	❏	Team members' discussion focused on ideas and their implementation rather than logistics, housekeeping details, and other minutia.
❏	❏	The members adhered to the team's norms.
❏	❏	The members came to the meeting with work completed that they agreed to do and were willing to accept work assignments.
❏	❏	Action plans were developed to follow through on team's decisions (e.g., Who will do the work? What will be done? When?) Timeline was identified.
❏	❏	Evaluation feedback was provided by the members at the close of the meeting.
❏	❏	Individuals with specific responsibilities (e.g., timekeeper, facilitator, recorder, process observer) added to the effectiveness of the team.

Meeting Roadmap

[Team Name-Date]

What	Results	How	Time
Agenda Items	Expected result during this meeting related to this item	Process (e.g., discussion, presentation, observation, resource person, question and answer, reporting)	Time allocated to this item

What	Results	How	Time
Example 1. Get organized	Agreement on agenda	Discussion	5 minutes
2.			
3.			
4.			
Feedback	+/Δ	Go Around	5 minutes

+ = strengths: what was good
Δ = what should be changed for next time

Meeting Ground Rules

When the team first meets, the members need to agree on some ground rules for working together. Agreement is a signal that everyone is committed to the team's efforts. Also, ground rules keep some conflicts from developing. They help resolve problems that might otherwise emerge.

Keep the ground rules visible by hanging them up in the meeting room. Review them periodically.

There are two approaches to establishing meeting ground rules. One is to distribute a list of sample guidelines and discuss and modify the list until agreement has been reached through consensus. Another approach is to discuss how the team would like to work together and then negotiate and agree to the ground rules. Regardless of approach, once team members have agreed to the ground rules, each member should sign a "contract" stating the he or she is willing to follow the ground rules and to remind others supportively to follow them.

This list and a sample format for Minutes of Meeting are in the Appendix/CD-ROM.

Sample Meeting Ground Rules

- Respect others; be on time; listen with interest
- Interact with others
- Participate in discussions
- Be willing to compromise
- Keep the best interest of the students in mind
- Treat everyone in a dignified manner
- Keep side conversations to a minimum
- Support decisions made by consensus
- Be honest and open to the ideas of others
- Make a contribution; everyone is responsible for team success
- Learn from the past, let go of it and move forward
- Focus on issues and content, not personalities and people
- Be creative when appropriate and fact/logic-driven when needed
- Follow through on agreements and action items
- Encourage the expression of different points of view
- Ask questions for clarification when you don't understand
- Review the effectiveness of each meeting during the meeting
- Check for consensus before finalizing decisions

Creating Small Learning Communities

Before implementing a small learning community, the staff members need considerable time and training to understand what a small learning community is, and how it will modify their teaching assignments and change the people with whom they work, as well as what impact it will have on the school culture in general. For example, an English teacher who has been teaching ninth grade English in a seven-period day in a large, comprehensive high school over a number of years will experience significant professional and personal change to transition to a team teaching assignment in a career academy with ninth through twelfth grade students in a block schedule.

Many of the changes involved with small learning communities relate to social relationships. Often, opposition to a change may have less to do with pedagogical issues and more to do with social issues. In the move toward small learning communities, there are many changes that have an impact on the classroom teacher – not least of which are the interpersonal relationships among staff. The implementation planning committee and the administration must take care to ensure that teachers are provided with the necessary support to be successful and thrive in a small learning community. As with any organizational change process, the biggest question that many staff members will have is: "How does this affect me?"

At every stage of the planning process, teacher representatives need to be involved in planning and implementation. They need to be active, collaborative committee members with an equitable share in the decision-making processes. The teacher representatives on the implementation planning committee must carry out their responsibilities and be held accountable for serving as liaisons between the faculty and the committee.

Areas to Consider for Teacher Orientation to Small Learning Community

Staffing Impacts

Anticipate the concerns of staff related to the change in their social relationships in the school organization and give them opportunities to raise

questions and express concerns. Also give staff time to develop new relationships in the new organization.

Background Information on Small Learning Communities

Chapter I provides a summary of the research.

Teachers may need to be convinced that the new organizational structure will be better than the current one. Some may need to be reminded about the envisioned benefits for the teaching staff as well as the students, who are the end users of education. Research on the successes of small learning communities should be shared with staff, and networks should be identified, so that faculty can investigate the track records of small learning communities. Faculty need to be a part of the process in determining what type of structure is implemented. The research and networks will enable staff to obtain answers to questions from peers they respect.

Curriculum

Interdisciplinary or integrated curriculum may be an approach that is threatening or challenging to many teachers. To go from a position of independence in planning instruction and selecting instructional activities, assessments, and so on to one that involves other teachers as well as other disciplines takes training. For some teachers, it is difficult at first to share instruction. Determining how one discipline supports or meshes with another is a challenge for some traditional classroom teachers — even the very good ones. Moreover, the teacher is no longer the "I" in instructional planning and facilitation but rather becomes a part of "we" in the process of teaching and learning. Teachers need training in creating integrated instruction, assistance in developing an understanding of and respect for other disciplines, and time to pilot interdisciplinary instructional activities and opportunities to go from cross-disciplinary activities between two disciplines to interdisciplinary projects and eventually to shared teaching.

The teacher is no longer the "I" in instructional planning and facilitation but rather becomes a part of "we" in the process of teaching and learning.

Alternative Scheduling

Most small learning communities use some sort of block schedule. The additional instructional time enhances instructional opportunities in applied learning activities; it also provides time for in-depth instruction. The

extended time is particularly valuable in an academy structure, in which time may be needed to engage students in work-based learning opportunities that support the core academic areas. Many teachers are skeptical of alternative scheduling; the mere thought of having a class for 90 minutes as opposed to the familiar 45 minutes is intimidating. In addition, in some alternative scheduling strategies, courses are taught for a full semester and then are not taught the next semester. Teachers fear that students will not be able to sustain competencies without continuous instruction. Staff members need time to explore the various types of alternative scheduling, visit schools that have successfully implemented forms of alternative scheduling, and receive professional development to support the change to an alternative schedule.

Teaming

The concept of becoming part of an instructional team, a member of a new school community threaded together by a common interest or focus, is a major shift in a teacher's participatory role within a larger school setting. Thus, training in such notions as team building, shared responsibility for students' achievement, collaborative planning, shared decision-making, and valuing the identity and goals of the small learning community needs to be provided.

Operating as a team, understanding team roles, and using the components of effective team meetings are addressed in the Developing Staff section.

Autonomy

In a small learning community, the community experiences a degree of autonomy not found in a large, comprehensive high school. Teachers should have opportunities to discover the advantages of this autonomy and realize its positive impact on their ability to reach the ultimate goal — nurturing students.

Personalization

As constituent groups, students and teachers both experience a greater sense of personal relationship in a small learning community. Teachers

are no longer lost in the larger faculty; rather they become part of a small, closely connected group of professionals working together in all aspects of school life in the small learning community. Everyone has opportunities to know and work with everyone else. People are missed when they are not present. To some extent, this also increases the accountability of staff. Furthermore, teachers usually have the same students over a longer period of time than is typical in the larger school setting. This increased time factor brings teachers much greater knowledge and understanding of their students. Teachers need to learn how to capitalize on this factor and use it to enhance student success.

Smallness alone will not equate with effective relationships. For teachers to understand and support small learning communities, to come to know and care about one another, to collaborate with others in the vision, design, implementation, and evaluation of teaching and learning in a new organizational structure, the process must begin with a great deal of support for teachers and support for teaching. True socialization of staff occurs when their collaborative efforts mirror a professional learning community, with staff development that is site-based, research-driven, and embedded in teaching. This will occur only with deliberate attempts to socialize staff within the small learning community and to provide the necessary support to familiarize staff with the restructured school.

Smallness alone will not equate with effective relationships.

True socialization of staff occurs when their collaborative efforts mirror a professional learning community.

Recruiting Staffing

One of the key components of a small learning community's success is its staff. It is essential to carefully consider the ability, capacity, and willingness of staff members to work together as a team. The staff members must become more than just a loose collection of talented teachers. They need to possess the balance of background, expertise, mixes/pairings of personalities, teaching styles, and interpersonal skills to provide the desired learning opportunities for the students. The relationship between the teaching staff and the students, parents, business and other partners, and other staff members is the most significant ingredient in the successful functioning of the small learning community.

Creating Small Learning Communities

Who Is Needed?

A small learning community, regardless of its organization or focus, needs a team of core academic teachers. Typically, these are individuals who possess certification and experience in the core academic disciplines of English language arts, mathematics, science, and social studies. Instruction in the core academic areas is integrated within the career or theme area. In a career or theme academy, individuals with technical skills and/or certification in the area of the academy are also members of the team. Their content knowledge provides the applications of the academics the students are learning.

Since a small learning community should mirror the student population at large, special education teachers and ELL/ESL specialists need to be included to work along with the regular classroom teachers to provide the extra support needed by these special learners. When guidance counselors are members of the small learning community, they can better serve the needs of students. For example, in career academies, these team guidance counselors become familiar with the career focus and can better assist students in preparation for participation in the field. The team counselors will also have a deeper understanding of the strengths and weaknesses of their students because they attend staff meetings. The agendas for these meetings usually include time for sharing information on individual students.

Teachers of other disciplines may also be a part of the small learning community. Depending upon the size, needs of students, and degree of autonomy of the small learning community, physical education, elective area teachers, and Advanced Placement teachers may constitute the full faculty, along with music and art teachers if they are not already primary teachers, as they would be in arts-related theme academies. In some schools, these individuals serve more than one small learning community and provide shared services to students across small learning communities. This is a common arrangement in the house design. However, if size warrants it and resources permit, these teachers are assigned to only one small learning community.

The following credentials, characteristics, and qualities should be considered when selecting or assigning staff:

- Certification in appropriate academic, elective, theme, and career-technical areas
- Racial and ethnic diversity reflective of the student groups served
- Male and female balanced distribution
- Bilingualism if appropriate
- Desire to work with the same group of students over an extended period of time
- Belief in and commitment to the value of the small learning community structure
- Effective interpersonal skills
- Ability to work well with others in a team structure
- Interest in the career area or theme if appropriate
- Interest in and an ability to team teach
- Interest in and an ability to engage in cross-disciplinary instruction
- Willingness to share teaching methodologies and strategies
- Ability to participate in a collaborative and cooperative leadership style governed by shared decision-making
- Ability to work with business or other partners in the academy structure
- Willingness to use new technology and instructional techniques
- Commitment to achieving and maintaining high standards within the small learning community structure

Factors to Consider When Selecting Staff

Teacher selection for teams for small learning communities is usually the responsibility of the school's principal and/or small learning community chairperson or principal. Choices need to be based on teacher interest and certification as well as on the needs of the academic programs that comprise the small learning community. Team creation involves sensitivity to the needs of teachers, too. Creating a small learning community from a traditional high school structure causes a great deal of uncertainty and

Creating Small Learning Communities

concern for staff members as they face a new and different teaching schedule, a teaming structure with staff with whom they may not have worked previously, and the normal stresses that accompany any major organizational change.

The ideal situation is one in which teachers volunteer or apply for positions in a small learning community. This is particularly true in the career/theme academy structure. An application form asking for interests, former teaching and work experience, areas of certification, and so forth can be helpful to the administrator or team making the staff assignments. Such a tool also gives teachers an opportunity to indicate their choice of assignment.

Each small learning community needs to have:

- At least one full-time teacher in each core academic area
- Staff members who can provide special education and bilingual/ELL services to students as needed
- Staff members who can provide guidance services

In addition, specialized small learning communities need:

- At least one full-time specialist teacher in the academy career or theme area

In selecting staff, administrators need to keep in mind not only the academic balance of the core areas, but also the personalities, skills, and leadership abilities of team members. Under the team structure, teachers will be required to work *interdependently* — a mode quite different from the independent style of teaching in a typical high school. The academic core teachers, in particular, need to be assigned on a full-time basis since they will teach the same students over an extended period of time. It is also desirable to balance male and female and new and seasoned staff. To reflect the makeup of the student body, consideration should be given to the racial and ethnic diversity of the teaching staff.

Teachers will be required to work *interdependently* — a mode quite different from the independent style of teaching in a typical high school.

Sample

**Teacher Application
for
Academies/Small Learning Communities**

Name _____

Certification Area(s) _____

Current Teaching Assignment _____

Years of Teaching Experience _____

Prior Teaching Assignment(s)/Courses Taught _____
_____
_____

Other Related Talents/Interests/Experiences _____
_____
_____

Academy Preference:

    1. _____
    2. _____
    3. _____

Why Should You Be Assigned to Your First Choice? _____
_____
_____
_____

Other Information You Think Important to be Considered:
_____
_____
_____

Creating Small Learning Communities

In career academies, a work experience coordinator assumes the responsibility of interfacing with businesses who provide work experience opportunities for students. This position may be part-time or full-time, depending upon the size of the work experience program. The individual assuming this position may be one of the academic teachers, a separate teacher hired just for this coordinating work, or in some instances, an employee loaned by one of the business partners. The coordinator makes contacts with businesses to establish mentoring, job orientation, and job experiences for students. This individual also is responsible for ensuring that the work experience is compatible with the overall goals and objectives of the instructional course of study. The coordinator also provides feedback to the program from students and participating businesses and works with the business partners in evaluating student performance.

Staff members make the difference in a successful implementation of any education initiative. This is particularly true when contemplating small learning communities. Developing and preparing staff must begin well before the planned change. There must be an ongoing priority to support professional development that is often embedded into the daily work of teachers, rather than providing it in the form of isolated workshops.

Four critical areas of staff development that leaders must give attention to are:

1. building support and setting goals
2. skills in group processes
3. curriculum planning
4. differentiated teaching in context

1. Building Support and Setting Goals

Staff development activities must focus on creating a positive attitude, refining the vision, and setting goals. Each staff member must be supportive of creating a small learning community, share the vision, and be committed to its goals. In order to avoid converting to a small learning community

If resources are available, an instructional aide, who acts as a teacher assistant, can help with classroom management, equipment set-up, individualized instruction, and tutoring.

Developing Staff

"Educational change depends on what teachers do and think - it's as simple and as complex as that."
-- Fullan & Steigelbauer

with all the problems of a large school, staff members need to be involved in defining the vision and have a voice in determining what the school will become. Staff must feel ownership of the specific goals of the small learning community.

2. Skills in Group Processes

This goal really requires a positive attitude and shared passion to become an authentic learning community.

A small learning community uses multiple teacher teams to make decisions and carry out responsibilities. One of the skills sets that staff must have is the ability to work effectively in teams. They must have the communication skills and group process skills to work effectively in these teams. A great teacher may not possess the skills to work effectively in a team. In traditional schools, teachers primarily work alone and have little opportunity to apply, observe, or learn about good team planning skills. Leaders need to ensure that the roles of planning teams are well-defined. Implementers also need to be sure that teams follow agendas to make their meeting time efficient and productive. It is important to spend time discovering, practicing, and modeling group planning skills.

3. Curriculum Planning

Most small learning communities have a focus or theme that is reflected throughout the curriculum. For example, in a career academy, this might be a content focus on one of the U.S. Department of Education's 16 Career Clusters; in a freshman house, it might be a strategic focus such as more individualized instruction. Whatever the focus, it will require staff to make changes in their curriculum, instruction, and assessment. Teachers will need knowledge and skills in planning to make these changes.

Chapter 3 expands on recommendations for curriculum planning.

4. Differentiated Teaching in Context

In small learning communities that have a career focus, some teachers will need to learn how to teach their subject within that context. These teachers will need staff development in how to modify instruction and assessment to bring in career-related content, maintain high levels of rigor, and remain committed to their curriculum standards.

Creating Small Learning Communities

Another challenging factor is that there will likely be more heterogeneous student groups. A small school has less flexibility to create homogenous grouping. While this situation may be novel for many high school teachers, it is not necessarily a disadvantage. If teachers differentiate their instruction, the result can be higher levels of achievement for all students. Staff development must provide teachers with the skills to differentiate their teaching and to allow variations in time and technique, while still helping all students achieve high levels of rigor and relevance.

Personal Changes in Creating a Small Learning Community

Moving to a small learning community means personal changes for staff. Not every teacher will initially be as excited about its value for students as the innovators with the driving vision. Staff development activities should help teachers deal with and embrace the changes. Leaders need to recognize the stages of professional evolution as they implement staff development. They will need to select activities at various times to meet the needs of staff members who may be less "onside" as leaders may want to believe. Groups will generally exhibit these variations, as individuals will vary in the speed at which they progress through these phases.

Change agents and leaders working to implement small learning communities should think about individual teachers as fitting into one or more of the following stages at the outset:

- *Awareness* – may or not be knowledgeable about small learning communities; asks a lot of "why" questions; is not ready to implement

- *Understanding* – is aware of small learning communities; wants to learn more; asks many detailed questions before supporting the initiative wholeheartedly

- *Personal* – is thinking through how this change will affect him or her personally and what new demands will be made; more reflection than asking questions

- *Organizational* – is supportive of small learning communities and has a lot of questions about how procedures will operate in the new structure; is interested in doing things correctly

- *Optimization* – is interested in using small learning communities and working with other teachers to improve learning; looking for ways that small learning communities can expand student learning

- *Modeling* – is willing to share with and teach others how to implement changes related to small learning communities

Characteristics of Effective Professional Development

Hawley, W. D., & Valli, L. "The Essentials of Effective Professional Development: A New Consensus"

Research on what constitutes good professional development is remarkably consistent across many studies. The emerging view represents an "...almost unprecedented consensus among researchers, staff development specialists, and key policymakers," according to researchers Hawley and Valli, who conducted several syntheses of the literature. In general, the research suggests that high quality teacher development:

- is integrated with district goals to improve education
- is guided by a coherent long-term plan
- is driven by disaggregated data on student outcomes
- is designed according to teacher-identified needs
- is primarily school-based
- provides a strong foundation in subject content and methods of teaching
- is informed by research on teaching and learning
- is designed around collaborative problem-solving
- enables teachers to work with colleagues in and beyond the school building
- is focused and sustained, providing follow-up support for further learning
- incorporates principles of adult learning
- provides sufficient time and other resources
- is evaluated ultimately on the basis of its impact on teacher effectiveness as measured by student learning

Taken together, these principles combine to describe professional development that can be effective in sustaining the implementation of small learning communities.

Models of Professional Development

As leaders and teams create a staff development plan, they should consider using some of the following models of providing professional development beyond the traditional workshop.

Teacher Networks

Teacher networks provide teachers with a supportive professional community beyond the school building. Some small learning communities networks are national in scope, while others cover one state or region. There are several networks on small learning communities organized around specific subject matter, which seek to deepen teachers' understanding of content as well as their facility with new teaching strategies. Network members stay in touch via electronic bulletin boards, e-mail, newsletters, telephone calls, and conferences.

Joint Work

Joint work refers to shared responsibility for such tasks as team teaching, curriculum writing, assessment development, and other jobs that create interdependence and cooperation among teachers. Joint work promotes on-the-job learning because it facilitates productive exchanges among teachers and reflection about practice. Assigning problem-based work tasks to small groups of teachers is a proven practice that develops better solutions and gives the teachers purposeful opportunities to learn from each other.

Partnerships

Partnerships with business organizations, universities, and other organizations enable considerable sharing of ideas and perspectives. They

Indicators of High-quality Professional Development

	Goal Setting	Needs Analysis	Program Creation	Implementation	Climate/Culture	Evaluation
Exemplary	Clear goals and expected results for schools/teachers; teachers directly tied to attainment of student results; goals understood by all.	Meaningful participation of all stakeholders in identifying needs and development of long-range professional development plans.	Uses a variety of strategies, delivery systems, models, and techniques to meet the needs of staff over a period of time; includes content and best practices based on research.	Continuous follow-up; opportunities for staff to practice skills; ongoing coaching; strong evidence of administrative support to continue with follow-up activities.	Administrators are instructional leaders; mutual respect and collaboration at all levels; professional development recognized as an essential part of change.	Ongoing data collection and analysis linked to student results; outcomes consistent with plan; data results drive ongoing planning cycle.
Effective	Goals exist but are either broad or diverse; generally related to student achievement; limited communication of goals across staff	Some participation by stakeholders; plan is developed but not tied to goals; needs are assumed but not individually identified by staff.	Limited but generally effective programs based on research and school needs but not linked to student results or individual needs.	Follow-up activities are encouraged, primarily at the group level, with some administrative involvement	Professional development is valued as a powerful change agent but top-level leadership is not apparent.	Student outcomes are evaluated but not in relation to interventions provided through professional development plan.
Wishful Thinking	Goals identified but not shared or not based on student achievement needs.	Process owned and controlled by one person; research or regulation driven with no relation to school or individual needs.	Menu approach to selection. professional development program; programs offered by tradition.	Occasional informal follow-up; administrative support may occur but without structure to facilitate.	Professional development tolerated but not consistently available to staff; individual initiative and risk-taking discouraged.	Any evaluations based solely on participant reaction to session (e.g., happiness scales).
Inadequate	No obvious relationship of professional development to district needs or improvement needed.	Superficial or no plan developed; no input of stakeholders; topics selected as separate events.	Single presentation or workshops, often to fill an available time slot; one-shot programs.	No follow-up provided; very limited opportunity to monitor and refine skills; any follow-up is self-driven.	Professional development not encouraged, mandatory participation of unwilling audience.	No evaluation conducted.

help teachers to gain access to new knowledge and to develop greater relevance in their curriculum from real-world examples. Staff development can be provided by an outside organization to facilitate the establishment and operation of school partnerships.

Distance Learning

Distance learning enables teachers to share and gain information electronically from remote locations without traveling to a meeting. In addition, content can be divided into more manageable pieces and offered through sessions spread out over longer periods of time. Effective online learning strategies can be used to create interest in virtual professional development. Distance learning removes two of the most significant obstacles to professional development: lack of time and the cost of getting teachers together.

Self-study/Resource Centers

Some teachers learn best on their own. Excellent professional development can be accomplished through regular access to periodicals, training materials, videotapes, computer study guides, and CD-ROMs. Having these materials in a resource room at school is convenient. Maintaining currentness of materials is essential.

Study Groups/Teams

Some of the most valuable learning comes from regular conversations among small groups of teachers focused around a single topic. These teams can meet regularly to discuss particular problems or initiatives. Frequently, combining self-study or reading with a study group creates a powerful learning situation.

Play/Experimentation

Very young children do much of their learning through play and experimentation. Even as adults, there is still a place for this mode of

learning. Teachers can learn by observing the environment around them and trying things out. By replicating things that work and continuing to collect new ideas, learning can result. Computer skills are an excellent example of new competencies that can be learned through play; many features of computer software can be learned merely by exploring and experimenting. This approach to learning can be frustrating as well as fun, but hands-on, interactive learning truly empowers the individual.

Teacher Research

Advocates of small learning communities should never underestimate the power of learning through structured action research in the classroom. By directly measuring the impact of changes in instructional practice, teachers will acquire an understanding of the value of the changes. Leaders should encourage teachers to set up experimental designs and collect evidence of the differences that result. Researching their own practices can yield significant change in the classroom.

Immersion

Immersion involves creating situations outside of the classroom in which teachers can fully engage in an activity that helps them develop a new perspective and acquire new skills. For example, a summer internship in a business/organization related to a career or theme academy can help teachers acquire technical skills related to their subject area responsibility. Jumping into a small school setting is itself an example of immersion in which teachers will learn new skills. As in all immersion activities, there needs to be continuous support and an absence of high-stakes accountability, as the new learner will make some mistakes.

Coaching/Mentoring

One way to develop new skills and knowledge is to challenge teachers to take on new responsibilities such as team teaching or conducting peer evaluations. Working in pairs or small groups can result in dynamic learning. Leaders may wish to encourage teachers to become lead teachers, members

of a curriculum team, or trainers. The highest level of learning is achieved when a teacher teaches something to another person. Moreover, many teachers may be more inclined to embrace a new idea when it comes from a respected peer rather than from a stranger. Coaching and mentoring provide ongoing feedback and support. Formal mentors and coaches guide, help, and encourage. They provide information on pedagogy and content, help teachers adapt new practices to their unique contextual conditions, help to analyze the effects of their efforts, and encourage teachers to continue despite minor setbacks. In other words, coaching and mentoring are forms of personal, practical, on-the-job assistance.

Personal Improvement Plans

Professional development is best promoted by giving teachers the opportunity to collaborate at the school level. Studies have shown that while most teachers work alone, many actually desire more collaboration with their peers. Research has also shown that schools are more effective when teachers have opportunities for observing their peers, helping one another, and participating in plans for school improvement. Teachers are more likely to make changes in their teaching if they see their peers attempting similar changes and have opportunities to discuss ideas, challenges, and implementation. Just as students learn better when they are able to construct knowledge by linking new experiences to previous ones, teachers need to learn through discovery and constructing knowledge.

> The Appendix/ CD-ROM has a Personal Growth Plan.

Professional development should involve a balance of training, content learning, and collegial support. There are times when training in a new technique or technology is essential. However, professional development designed as training has limited transfer and implementation possibilities. The subject-matter approach may be appropriate for initial teacher preparation, but it is difficult to convince practicing teachers that they need more content knowledge. While there is often additional content that teachers need to learn, professional development must emphasize an ongoing structure of collegial support if any change is to occur. The most valuable professional development and the greatest source of new ideas

> The most valuable professional development and the greatest source of new ideas come from activities designed and controlled by teachers as individuals.

come from activities designed and controlled by teachers as individuals. The process for achieving improvement is for teachers to also develop their own personal improvement plans.

Professional Development Activities for Small Learning Communities

The following activities can help staff in develop a small learning community.

Discuss a Book

A timesaving spin on a professional study group is to assign a group of teachers to read a book or collection of articles on small learning communities. Leaders should establish a deadline for the reading and use the school e-mail to establish a group mailing list to share learning among all teachers in the group. The learning group might want to pose a beginning question such as: "What did you agree with in this book/article?" Have staff respond to the question and e-mail the responses to the group. Members might then pose additional questions to stimulate online conversation or use a more formal online bulletin board to record responses. For a small group, e-mail works just as well, and teachers are likely to read responses more frequently.

Organize Professional Development Teams

Being part of a team is an effective approach to delivering professional development. Learning leaders can determine the areas of expertise for each team member (e.g., curriculum or content areas, technology skills, group facilitation, classroom management strategies, instructional strategies) or survey team members about what they really would like to be doing. The learning team members could be grouped by areas of common interest and expertise, and then gaps and strengths could be identified in that subgroup. With the team's permission, leaders might assign who on the team will be responsible for what type of activities. A flowchart of the roles on the teams to accomplish professional development could be developed and referenced as needed.

Creating Small Learning Communities

Team Building

Professional development activities should include strategies for teachers to get to know one another better and collaborate, share, and learn from each other. Structure workshop activities so that teachers work in pairs/groups with people they know and do not know. Allow teachers to share experiences during the beginning of a workshop/training. Constantly mix groups to be sure that all staff meet and learn more about each other. Plan social events that include organized ice breakers to enable staff to learn more about each other.

Brainstorming Carousel

When teachers or administrators get together for a workshop or meeting, it is a good idea to facilitate discussions in which everyone shares and learns from each other. Carousel is an activity that provides for brainstorming in small groups. Key issues or questions should be written on flipchart paper and posted around the room. Leaders divide the large group into the same number of smaller groups as there are posted papers. Give each group a different color marker and assign one person in each group to be a recorder. Each group has three to four minutes at each question to record responses or ideas. Each group then returns to its first question and summarizes the points that everyone wrote in one or two sentences. The groups report their findings. At the conclusion, all the poster papers and summaries should be collected, typed, and shared with participants.

Small Steps in Building a Learning Community

Not all teachers are ready initially to collaborate in a learning community, but encouragement and time to plan, share, and learn from each other will get them started toward creating such a small learning community. Anyone involved in designing the professional development program should consider some of the following ideas and small steps for teacher collaboration:

- Encourage team teaching for interdisciplinary projects.
- Create an ad hoc team to address a problem or issue.
- Encourage visiting each other's classrooms.
- Form small reading/discussion groups.
- Find areas of expertise among staff and ask them to share their expertise with one other staff member or a group.
- Provide support staff with innovative ideas.

Keys to Success

Although professional development programs may follow different paths, the following guidelines are critical to all effective professional development. Following these guidelines will not guarantee success, but ignoring them will undermine efforts to bring about the significant changes desired.

1. Focus, Focus, Focus

For many schools, the problem is not the lack of innovation, but too much innovation. Each year new programs are introduced without showing how they relate to the programs that came before. Teachers may find themselves confused and wondering which approaches to embrace and which to ignore. The result can be an overload of fragmented, uncoordinated, superficial attempts at change. A constant stream of unrelated innovations provokes cynicism and imposes a sense of affliction. Veteran teachers may calm the fears of their less experienced colleagues with the advice, "Don't worry; this, too, shall pass."

Innovations must be presented as part of a coherent and ongoing framework for improvement in which everyone keeps searching for better practices or programs. It matters less which program is picked and more whether a concerted effort is made to focus on that program and carry it to full implementation. All school-sponsored professional development should directly relate to this focus.

2. Feel the Heat and See the Light

Continuing and determined pressure is often necessary to initiate change among those whose motivation for change is not great. It provides the encouragement, motivation, and occasional nudging that many practitioners require to persist in the challenging tasks that are intrinsic to all change efforts. In some contexts, a substantial amount of pressure from leaders may be necessary to overcome inertia, recalcitrance, or outright resistance. It is possible, for example, when making decisions about instructional practices to overemphasize teachers' preferences and underemphasize concern about student learning. Leaders must emphasize that this change is for the good of students and not for the convenience of adults. Pressure in the extreme is counterproductive; however, and strong-arm tactics can stifle innovation. The key is to find the optimal mix of persistence and patience to ensure that teachers recognize the need for increased expectations.

When coupled with an inspiring vision, the pressure of increased expectations can be a powerful combination. Merely sharing a vision with no incentive or encouragement to change has little impact on staff. However, the combination of expectations and accountability makes educators much more receptive to visionary ideas and creating subsequent professional development.

3. Change Both Individuals and Organizations

Success in any improvement effort hinges on the smallest unit of the organization. In education, that is the classroom. An important lesson learned from the past is that one cannot improve schools without improving the skills and abilities of the educators within them. In other words, it is necessary to see change as an individual process and be willing to invest in the intellectual capital of those individuals who staff our schools.

On the other hand, to look at change as only an individual process can make professional development a difficult personal endeavor. Principals and teachers are often reluctant to adopt new practices or procedures unless they feel sure they can make them work. To try something new means to risk failure, which can be both embarrassing and threatening to one's professional pride.

Of course, organizations also adopt change. Neglecting factors such as system politics will severely limit the likelihood of success of any professional development or improvement effort. However, to facilitate change, leaders must look beyond policy structures and consider the embedded structure that most directly affects the actions and choices of the individuals involved.

The key is to find the optimal mix of individual and organizational processes that will contribute to success in a particular context. Viewing change as both an individual and organizational process will help clarify the steps necessary for success in professional development.

4. Involve Everyone

The discomfort that accompanies change is greatly compounded if the individuals involved believe that they have no say in the process or if they feel isolated and detached in their implementation efforts. For this reason, it is imperative that all aspects of professional development be fashioned to involve teams of individuals working together. This means that planning, implementation, and follow-up activities should be seen as joint efforts that provide opportunities for individuals with diverse interests and responsibilities to offer their input and advice.

To insure that the teams function well and garner broad-based support for professional development efforts, individuals from all levels of the organization must be involved. In school improvement programs, for example, the most effective professional development teams include teachers, non-instructional staff members, and building and central office administrators. In some contexts, the involvement of parents and community members also can be helpful.

Working in teams is not just important to developing consensus; it also allows tasks and responsibilities to be shared. This not only reduces the workload of leaders and individual team members, but also enhances the quality of the work produced. By bringing groups of individuals together, change leaders can expand the pool of good ideas and build a sense of shared responsibility for success of the initiative.

It is important to note, however, that while broad-based support is the goal, large-scale participation during the early stages of a change effort can be counterproductive. Elaborate needs assessments, endless committee and task force debates, and long and tedious planning sessions can create confusion and alienation in the absence of any action. Extensive planning also exhausts the energy needed for implementation. By the time change is to be enacted, people are burned out.

5. Keep One Eye on the Prize (and One Eye on the Ground)

Another balance point in professional development is to pay attention to both the goal (the prize) and the current conditions (the ground). Paying too much attention to either one can lead to unsuccessful changes. Leaders must keep a balance between the idealism of what the group is trying to achieve and the reality around them.

There is no easier way to fail than to take on too much at one time. In fact, if there is one truism in the vast research literature on change, it is that the magnitude of the change people are asked to make is inversely related to their likelihood of making it. Successful professional development programs are those that approach change in a gradual and incremental fashion. When a new program does require that major changes be made, it is best to ease into its use rather than expect comprehensive implementation at once.

While the changes advocated in a professional development effort must not be so ambitious that they require too much too soon from the implementation system, they need to be sufficient in scope to challenge professionals and kindle interest. Professional development efforts should be designed with long-term goals based on a vision of what is possible.

That vision should be accompanied by a strategic plan that includes specific incremental goals for three to five years into the future, gradually expanding on what is successful in that context and offering support to those engaged in the change.

6. Provide Follow-Up and Support

Few teachers can put a professional development experience directly into implementation with full success. Implementation requires attempts, reflection, and adjustments, followed by further attempts. Adopting new teaching practices and techniques is an uneven process that requires time and extra effort; guidance, direction, and support are especially crucial when these adaptations are being made.

The early stages of implementation are complicated. There is a natural state of confusion and loss of productivity. Problems encountered at this time are often unanticipated. Regardless of how much planning takes place in an effort to establish readiness, it is when professionals actually implement the new ideas or practices that they have the most doubts. Support at this time is vital to help those engaged in the difficult process of implementation tolerate the anxiety of initial "failures."

Of all aspects of professional development, learning to be proficient at something new or finding meaning in a new way of doing things is perhaps the most neglected. Any change that holds great promise for increasing teachers' competence or enhancing an organization's effectiveness is likely to be slow and require extra work. It is imperative that improvement be seen as an ongoing endeavor.

Support does not have to be extensive or involve a formal program. Simply offering opportunities for practitioners to interact and share ideas with each other is valuable.

If a new program or innovation is to be implemented well, it must become a natural part of the practitioners' repertoire of professional skills and be

built into the normal structures and practices of the organization. The new practices and techniques must become habit. For this to occur, continued support and encouragement are essential.

Coaching provides practitioners with technical feedback, guiding them in adapting the new practices to their contextual conditions, helping them to analyze the effects of their efforts, and urging them to continue despite minor setbacks. In other words, coaching is personal, practical, on-the-job assistance, which can be provided by consultants, administrators, directors, peers, or other professional colleagues.

Summary

The preceding suggested keys to success are not new and certainly cannot be considered revolutionary. They may, in fact, appear obvious to those with extensive experience in professional development processes. Yet, as self-evident as they may seem, it is rare to find a professional development effort that is designed and implemented with thorough attention to all of these factors. It is rarer still to find professional development endeavors that evaluate the implementation of these suggestions in terms of effects on student learning.

Greater success in professional development rests not so much in the discovery of new knowledge, but rather in the ability to apply what is already known. While the change process is difficult and complex, understanding how to facilitate that process through well-planned, ongoing professional growth and improved professional practice is generally acknowledged to be key.

Business-Education Partnerships

Small learning communities have much to gain through partnerships with business, especially if the small learning community has a career theme. This clear focus makes it easier to establish partnerships with businesses, create a business advisory committee, and solicit advice from business leaders and other professionals. With the transformation of the U.S.

economy, the demand for workers with suitable skill development has led business, industry, and labor to partner with schools to assist in preparing tomorrow's workforce. Small learning communities should pursue business-education partnerships that are mutually satisfactory to students, teachers, educational programs, business, and community economic growth.

Benefits of Business-Education Partnerships

Having a business partner can be a significant benefit for a small learning community. A well-known and respected business can be an excellent "branding mechanism" that brings recognition to a new academy struggling for identity. Among the many benefits of having a business partner are the following:

- *Schools* have more motivated students with better attendance, behavior, and achievement, which contribute to school improvement and image.

- *Students* gain an enriched curriculum, identify with successful role models, possess opportunities for significant work experience, gain knowledge, skills, and understanding, are recognized for achievement, have higher self-esteem, and possess a heightened sense of community.

- *Teachers* gain assistance in specific curriculum areas, opportunities for professional development, recognition for achievement, and access to technological advances and equipment.

- *Businesses* ensure a better prepared workforce and employees who are more satisfied with their jobs, more committed to their employers, and more productive at work. They also demonstrate their sense of civic responsibility and gain a level of consumer respect and loyalty that conventional marketing cannot generate.

- *Communities* enhance their local business climate and the vitality of their residential areas, both of which can help them meet the challenges of the future and ensure long-term economic growth.

> Small learning communities should pursue business-education partnerships that are mutually satisfactory to students, teachers, educational programs, business, and community economic growth.

Creating Small Learning Communities

Partnering Activities — Students

A variety of opportunities for students can be provided to enhance learning and prepare them for the world beyond school. These include:

- Visits to a company/organization
- Classroom visits/talks by company/organization representatives
- Mentoring of students by business employees
- Shadowing for students in the workplace
- Career education and guidance
- Providing a congratulatory letter from a business leader to each student who makes the honor roll
- Developing student internships and job placement opportunities

Partnering Activities — Teachers

A business partnership supports teachers by keeping them up-to-date on current industry and business practice and assisting them to provide a relevant, meaningful curriculum. In return, the company's profile and reputation are enhanced. Activities include:

- Externships in business for teachers
- Business contributions in the classroom to support instruction
- Employers serving as consultants to teachers
- Rewarding exceptional teaching performance
- Sharing in the company's training programs, stress workshops, time management seminars, and so forth

Materials and Equipment

Businesses often have a wealth of resources to share. Supporting a school with materials or money can help it move forward with lasting effects on student achievement and ultimately on career success. Examples include:

- Surplus business equipment provided to the school

Other Partnering Tips:

✓ Display student work at the business.

✓ Reward students for perfect attendance with lunch at the business cafeteria.

- Surplus furniture to upgrade a teacher lounge
- Paper of all sorts
- Equipping classrooms to help provide a learning environment that is an extension of the workplace

Answering the Question: Why Business Involvement?

This discussion is also available as a handout (see Appendix/CD-ROM).

To continue to run a business successfully, employers will need employees who are team-oriented problem solvers, are articulate, possess functional writing skills, understand human nature, and are fully versed in applied technology. With this range of skills, employees will perform at the level necessary to keep a business competitive. In educational terms, this means that adults must be lifelong learners. It is our responsibility to show students that education only begins in school. The presence of business emphasizes how real that aspect of lifelong learning is.

Business leaders know that if they aren't learning something new all the time and applying that knowledge to their business daily, someone else will. The enormous technological expansion that the world is experiencing means that innovation is necessary to give the United States the ability to compete.

The outcome of high-quality education is a workforce that can provide better services and products for the consumers both in the community and beyond. Today, the academic skills and knowledge required of entry-level employees are often at a higher level than those required for college.

Business leaders have a unique position in the community. They are looked up to because of their financial success, and this gives them an opportunity to influence people. This influence will help young people become better prepared for their first steps into a career.

Creating Small Learning Communities

Businesses often relocate to find a more suitable workforce. A world-class workforce in any community strengthens the economy of that community by providing more employment.

Business is supported by the community. It is the responsibility of business to support the endeavors of the community, among which the education of its children is primary.

Advisory Committees

All small learning communities that have a career theme should create an advisory committee. This committee should be composed of professionals working in jobs related to the theme. An effective advisory committee provides ongoing evaluation, consultation, and research on programs and curriculum by:

- Developing and carrying out a yearly plan of action/program of work
- Articulating long-term and short-term goals and objectives
- Reviewing the curricular program regularly
- Promoting and publicizing the program
- Reviewing yearly outcome data from the program
- Assessing the impact of recommendations on an annual basis

Committee membership should be comprised of men and women who represent the community, special populations, business, industry, students, parents, community agencies, and labor and who have skills in and knowledge of the career area. Selection criteria should include work expertise, industry perspective, peer recognition, interest in students, commitment, and diversity. Other aspects to consider include:

- Establishing processes for member recruitment, selection, appointment, and retirement
- Conducting member orientation, relationship building, development, and evaluation activities
- Recognizing member contributions formally

It is best if the advisory committee is appointed formally by the Board of Education. The committee should follow the same group processes and procedures established for other teams in the school and operate under written policies. The committee chairperson should be a business member, not a teacher. Meetings should be short, well-planned, and scheduled well in advance. Records of recommendations and committee actions should be maintained and distributed to appropriate administrators and members.

Responsibilities of Advisory Committees

Most business advisory committees conduct activities in the following areas: curriculum and instruction, program review, recruitment and placement, student learning, staff development, advocacy, and resources. These activities are described as follows.

Curriculum and Instruction

- Identify and expand the use of new technologies
- Compare content with skills used in the workplace
- Analyze course content and sequence
- Assist in developing and validating tests
- Advise on industry trends
- Review, recommend, and assist in obtaining instructional materials
- Recommend safety policies and procedures
- Evaluate student work, such as senior projects

Program Review

- Review and recommend program goals and objectives
- Participate in program evaluation and recommend evaluation criteria
- Compare student performance standards to business/industry standards
- Assess, recommend, and/or provide equipment and facilities
- Evaluate the quality and quantity of graduates
- Conduct community and occupational surveys
- Participate in long-term planning

Recruitment and Placement

- Assist in reviewing teacher selection criteria
- Assist in recruiting new staff and potential students
- Provide or obtain cooperative work experiences, internships/ externships, work/ study, or work-based learning opportunities for students
- Assist students in developing resumes and interviewing skills
- Assist with career days/job fairs
- Help students with job placement

Student Learning

- Sponsor student organization activities and assist in fund-raising
- Conduct leadership development activities
- Assist students with career development
- Evaluate student portfolios

Staff Development

- Provide instructors with retraining/back-to-industry and summer opportunities for technical skill upgrading
- Review professional development plans
- Support staff attendance at conferences
- Conduct workplace tours

Advocacy

- Interpret and "sell" the small learning community program to employers, community, and media
- Present programs to community groups
- Establish programs to recognize outstanding students, teachers, and community leaders
- Promote special school events
- Assist in developing a marketing plan
- Explain program to school leaders and Board of Education members

Resources

- Assist in budget development and review
- Conduct fund-raising activities and make/obtain donations
- Establish scholarships and awards
- Provide tours and field trips, job-shadowing experiences, and speakers
- Leverage community resources and broker community partnerships

Student Body: Composition and Recruiting

Whether students self-select or are assigned to participate in the small learning community, certain key factors constitute the composition of the student body and characterize the instructional group. These factors are discussed as follows.

Size

Size is a major factor in defining the small learning community. It facilitates other successful practices that enhance student achievement. For example, personalized relationships, team teaching, and flexible groupings are easier to implement in small schools. So, obviously, size needs to be addressed when determining the makeup of the student body.

Typically, a small school refers to 50-400 students.

The tendency is to refer to a small learning community as any separate, distinct learning unit within the context of a larger school. Common teachers and students are a part of this learning unit. Researchers avoid actual numbers when defining "small" schools, but typically, a small school configuration refers to 50-400 students. These figures should help guide decisions about the number of academies or houses to be established. Also, geographic location and the size of the facility may determine the size of small learning communities.

Creating Small Learning Communities

General Configuration

The small learning community needs to reflect the total student body of the larger school. A balance between male and female students needs to be maintained. Ethnic and minority groups should be spread across the academies/houses to ensure diversity of population. Inclusion of special education and ESL students needs to be ensured.

Heterogeneous Grouping

Small schools often group students heterogeneously, a practice that tends to support higher academic results for all students. When students are tracked according to their perceived academic ability, there is little opportunity to address changing student needs and performance. Typically, many minority and economically disadvantaged students end up being assigned to lower tracks. This results in the widening of the achievement gap. Tracking has a tendency to create greater isolation for these students.

In the small learning community, all students in heterogeneous groups are held to the same expectations. Teachers address the various learning styles and student needs. The benefits of heterogeneous grouping include:

- *High expectations are held for all students.* Low-achieving and Advanced Placement students are held accountable to reach the same high standards of learning. This contributes not only to the excellence of the small learning community, but also to equity of learning opportunity.

- *All students have the opportunity to learn the same curriculum and benefit from challenging instruction.* All students are provided with the same course of study and have enhanced opportunities for learning. Student success is measured against expected high standards, and students need to demonstrate what they know and are able to do. In a heterogeneous grouping, students are no longer perceived as capable or incapable. Students are assessed based on their actual performance.

- *Students are provided with individualized and differentiated learning experiences.* When students are tracked according to perceived ability, they are usually not challenged to the degree that heterogeneous grouping provides. Within the heterogeneous group, students may move from subgroup to subgroup; groupings are flexible and give students a means to experience different learning activities for varied purposes. Within the flexible group structures, students may benefit from additional staff support for enrichment activities as well as for academic assistance.

- *Students learn from one another.* With different learning capabilities, levels of academic success, and learning styles, students can become the best teachers of one another in the heterogeneously grouped class. The low-achieving student may be motivated and encouraged by the higher-achieving students, while the high-achieving student may clarify individual competencies through dialogue and mentoring activities with lower-achieving students.

Differentiated Instruction

A diverse group of students challenges the teacher to provide a variety of instructional strategies, activities, and student work to engage all learners. In a small learning community, smaller class size allows teachers to provide differentiated instruction to meet individual learner needs. Differentiation may be by task, amount or type of student work, or assessment. For example, all students may be assigned the same final product or performance, but they may have different activities to complete in order to arrive at the final outcome. Another variation can occur with assessment. Some students may complete a written assessment, while others may be evaluated by an interview with the teacher. Students are held accountable under the same rubric for knowing and demonstrating the same knowledge and/or competency, but they may show their degree of proficiency based on their individual learning style.

Creating Small Learning Communities

In the small learning community, project-based learning, cooperative learning activities, Socratic seminar, inquiry, problem-solving, and other instructional strategies can motivate and meet the needs of learners due to the variety of approach. Some strategies are easier to implement in a smaller learning community. In a career academy, for example, work-based learning programs can be defined and developed on an individual basis.

Student Recruitment

Student interest and self-selection typically determine enrollment in small learning communities, although students are also recruited to participate. For example, at-risk students may be targeted for a career academy. Students that have experienced poor academic achievement, have poor attendance rates, have challenging socioeconomic backgrounds, are potential dropouts, or have limited English proficiency may thrive on the applied academics in the academy.

Broader cross representation of students has become the goal of most career academies. This recruitment effort strengthens the program and engages more business/industry representatives to support the academy and employ its students and graduates. Stigmas attached to certain targeted groups are also eliminated under this broad academy application.

Student Choice in Career Academies

One of the most important characteristics of career academies is a student's choice in attending. Students are not assigned to academies; rather they select or apply to an academy with a career focus in which they are interested. Student selection is motivated by staff recruitment activities designed to inform students about areas of career interest provided by the academies.

The application process is similar to job or college application procedures. Students complete an application process that typically consists of the following:

- An application form requesting background information (name, student identification number, home address), academic performance information, involvement in extracurricular activities, and employment experiences

- Letter(s) of recommendation

- A writing sample describing interest in the academy and what benefit the student will bring to the academy as well as the expected benefits the student will receive from the academy

- A copy of a school transcript

In some instances, students may be interviewed by the academy core team and/or technical teacher. They may take an interest inventory test to assist the administration in making the right match between student and academy program. Parents may be contacted to ensure that they are informed of the academy program and the student's responsibilities if accepted. This also helps to gain parental involvement and support.

The most successful small learning communities are those in which both students and teachers have chosen to participate. Therefore, wherever possible, students should be assigned to the academy of their choice. These students will be more motivated, collaborate with other students more easily because of shared interests, and experience more improved academic achievement than they would otherwise. They also share similar interests with teachers.

Recruitment Activities

The staff of the career academy establishes policies and procedures for recruitment. If there is a ninth grade transition program, students from the ninth grade program are typically included in some of the academy activities during the school year. This gives potential students an opportunity to experience firsthand some aspect of the academy program. These activities might consist of field trips, project presentations, and shadowing of older students at school or in a work experience program.

Specific recruitment activities include:

- Development of printed or Web site material that outlines the small learning community's vision, goals, academic program, work experience opportunities, and business and industry partnerships and delineates how the academy's program meets academic, as well as career and technical education requirements for graduation.

- Visitations and presentations to ninth grade classes. This is often more effective if conducted by a student in the academy program.

- Recommendations sought from guidance counselors and teachers, who are asked to suggest students who they think would benefit from the academy experience. These students are then contacted.

- Informational meetings for students and parents. These sessions not only give an opportunity to describe the academy's programs but also provide a chance to explain the expected standards, student's responsibilities, and commitment to the program.

- Review of applications.

- Group/individual interviews.

Some ninth grade programs are designed to be pre-academy programs. This gives students an opportunity to explore areas of interest.

Selection Process

The academy's standards should mirror those of the business world with respect to attendance, punctuality, work ethic, and effort.

A staff team from the small learning community, including instructional leadership, reviews all the criteria for student body composition along with student application materials and interviews. If criteria have been set to target specific groups of students, particular attention must be paid to these criteria to ensure appropriate candidates are selected. Where possible, student choice should be given first consideration.

In the career academy structure, the selection process and student notification of acceptance usually occur during the spring semester of ninth grade. If the small learning community is a ninth grade transition program, then selection takes place during the spring semester of the eighth grade.

Transfer Process

Student participation in most academies is voluntary. Thus, students may choose to leave the academy and return to the regular school program. Also, if students fail to accept the responsibilities of the academy program or exhibit disruptive behavior, they may be removed from the academy.

Transfer students from other schools and/or students who change their career interest create a challenge to the goals of consistency and stability of the small learning community/career academy. Many schools have a highly transient student population due to migrant labor, families relocating, parental job transfers, and so forth. Comprehensive programs with specific requirements, assessments, and work experience components need to develop transfer policies and procedures to ensure that students' needs are met and the program maintains its reputation for high standards and well-prepared and high-achieving students.

Transfers policies need to be in place to guide decision-making in situations such as the following:

- Students want to transfer from one small learning community/academy to another because they realize that the small learning community focus is not a good match to their interests. Policies containing some degree of flexibility need to be set to allow students to transfer between programs. Student needs always have to be a primary consideration in assignment to academies; however, some limitation must be set so that students are not moving continually among programs.

- In districts with more than one high school, policies need to be set to ensure ease of transition, if a student leaves one high school and moves to another. Coordination of scheduling, credits, programs, policies, and procedures will prevent complex readjustment situations for students.

- Students wish to transfer into a small learning community/academy from a more traditional high school or from outside the district. Procedures similar to those used in selecting students for an academy should be applied. A careful review of the student's record, interests, motivation, and so forth will limit problems that can develop when students need to "catch up."

Planning a Small Learning Community Checklist

This three-step checklist (Getting Ready, Getting Started, and Getting It Done) can guide the planning for a small learning community. Items with an asterisk * apply only to career academies.

GETTING READY	Target Date	Initiated	Completed	Notes
Local Leadership				
Form steering committee				
Develop plan and implementation timeline				
Community Needs Assessment				
Identify area employers*				
Develop employment projections*				
Student/parent interest surveys				
Stakeholders				
Meet w/ colleges and universities				
Meet w/ business leaders				
Meet w/ community leaders				
Meet w/ employers*				
Meet w/ parents				
Meet w/ sending schools leaders				
Best Practices				
Identify national resource networks				
Identify and visit other schools				
Plan				
Develop vision and design				
Identify student education needs and set goals				
Determine evaluation criteria				
Select theme*				
Design course of study*				
Determine type of schedule				
Determine enrollment targets				
Determine school location and facilities				
Determine staffing				
Funding				
Identify local funds				
Identify grant sources				
Apply for planning grants				

Creating Small Learning Communities

GETTING STARTED	Target Date	Initiated	Completed	Notes
Advisory Board				
Develop roles and responsibilities*				
Arrange for appointment*				
Select members*				
Hold initial meeting*				
Review district procedures and policies related to donations, internships, partnerships and safety*				
Curriculum				
Establish course titles and descriptions				
Develop/adapt curriculum frameworks				
Develop four-year sequences*				
Determine model for interdisciplinary instruction*				
Develop student career interest surveys*				
Develop student assessments				
Train teachers in instructional model				
Determine data available to teachers for instructional planning				
Develop articulation agreements with local post-secondary institutions*				
Facilities and Equipment				
Develop equipment and material lists				
Order textbooks, software and instructional materials				
Students				
Develop master schedule				
Determine extracurricular activities				
Secure student organization charters and memberships*				
Plan student support services and academic intervention				
Develop on-the-job training sites*				
Develop transfer policies/procedures*				
Staffing				
Hire school leaders/assistant principals				
Hire/assign teachers				
Develop professional development plan				
Develop leadership and governance structure				
Develop leadership teams and roles				
Identify teacher professional development opportunities				

GETTING IT DONE	Target Date	Initiated	Completed	Notes
Students				
Develop parent materials				
Recruit students				
Develop intake procedures				
Select and assign students				
Create student schedules				
Develop student handbook, code of conduct				
Set up conflict resolution student procedures				
Stakeholders				
Set up media interviews				
Orient district leadership				
Staff				
Hold team building activities for staff				
Set up instructional supervision procedures				
Administrative				
Develop academy budget				
Set up accountability procedures for leadership teams				
Develop facilities use plan				
Develop annual calendar of events				
Set up safety and facility use procedures				
Collect evaluation data				

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Chapter 3 Teaching and Learning

A Goal of Rigor and Relevance

The goal of creating a small learning community is to help students (1) achieve at higher levels of student achievement, and (2) value learning and see the connection between school and their future. To ensure that students have the opportunity to reach this goal, it is essential for the small learning community to focus teaching and learning on rigor and relevance.

Since its inception in 1991, the International Center for Leadership in Education's core belief has been that what students need to succeed in the 21st century is an education that is both academically rigorous and "real-world" relevant. This objective of rigor and relevance is not just for some students; it is for all students. The current context of school reform, as driven by the *No Child Left Behind Act of 2001*, places the International Center for Leadership in Education ahead of its time in gauging the essential goal of public education. As schools and teachers struggle to cope with new accountability requirements, one thing is clear – simply working harder doing what we have always done will not yield higher student achievement. Different results require different solutions. Small learning communities will be no more effective than large high schools unless they aspire to rigorous and relevant teaching and learning.

Following are the reasons why rigor and relevance are essential in the plans for a small learning community.

A Changing World

Recent advances in science and technology are mind-boggling. Three areas of technological change that have far-reaching implications are information technology, biotechnology, and nanotechnology, which allow construction of miniature devices from molecules for use in medicine and other fields. While technological innovations bring many benefits, there is little argument that they add to the complexity of our world and increase the skill level every person needs to function effectively in our society.

Creating Small Learning Communities

It is impossible to forecast exactly where the future will take us, but it is obvious that as technology continues to evolve, it will alter the workplace and our homes, personal lives, and education systems.

High school graduation must be viewed not as the end of learning, but as the jumping-off point for a lifetime of learning that will involve both acquiring new knowledge and applying existing knowledge to new situations. It is lifelong learning skills that will help students to make informed and intelligent decisions regarding the direction and limitations of technological developments, the use of technology to alter their own lives, and other major financial, professional, and personal questions that they will undoubtedly face. These skills cannot be taught as discrete topics. Rather, students learn them through high-quality, challenging lessons based on real-world problems and unbounded by separate school subjects.

Need to Motivate All Students to High Achievement

One of the barriers to higher achievement most often cited by teachers is that students lack motivation to learn what is being taught. The problem might be better defined as lack of student involvement or engagement in the learning experiences being offered. A telling piece of research was published in the *Condition of Education 2002*. The National Center for Educational Statistics reported on student perceptions of meaningful

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Why Rigor and Relevance?

- A Changing World
- Need to Motivate All Students to High Achievement
- Emphasize Essential Skills/Knowledge
- Shift Focus from Teaching to Learning
- Reduce Overloaded Curriculum
- Unified Perspective and Focus
- Preparation for State Tests

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schoolwork, interest of courses, and whether school learning will be important in later life for 1983, 1990, 1995, and 2000 (see the following bar graph). To understand the shrinking percentages, we must recognize the changes that have occurred in schools over that time. Since *A Nation at Risk* appeared in 1983, there has been a continual introduction of new requirements as part of an ongoing effort to raise standards. It appears that the result at the high school level has been to make learning less interesting, less meaningful, and less connected to students' perception of the future.

By looking at teaching and learning from the perspective of relevance as well as rigor and by emphasizing hands-on learning, we can engage students in meaningful and challenging work. Project-based learning motivates students to learn.

INTEREST IN SCHOOL: Percentage of 12th-graders who expressed various opinions about their school experience: 1983, 1990, 1995, and 2000
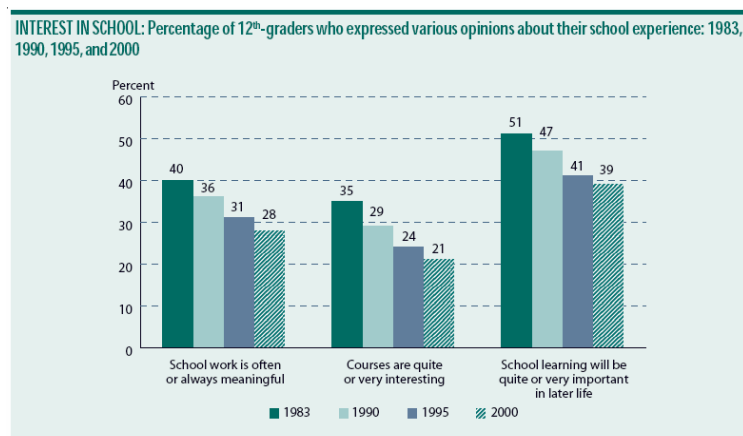
Emphasize Essential Skills/Knowledge

Too often teachers answer a student who asks, "Why do I need to learn this?" with the glib response, "Because I had to learn this stuff, and now it's your turn" or with the equally weak response, "You will understand

later in life why this is important." There are skills that are important for all students to learn in school. However, many things taught out of tradition or teacher interest are of lesser importance. Students need to understand what is truly important for them to learn. Teachers need to provide a relevant contextual base for the knowledge and skills they teach to their students. Education is meaningless when it is reduced to an unending list of content topics for which the student quickly learns the facts, takes the test, and then forgets it all. Focusing on a narrower list of priority skills and knowledge makes the importance of learning these things clear.

Project-based learning presents a problem that is relevant and related to the context. When students experience a problem in context, they are more likely to make connections and thus see the value in what they are learning. The rigor follows.

Shift Focus from Teaching to Learning

In a discussion of low or inadequate student achievement, some teachers lay the blame completely on the students. Teachers who feel this way believe that they are doing a good job. They feel that if the lesson is clear in their minds, organized well and presented completely, then they have done their job.

This narrow perspective fails to recognize that learning, like communication, is not a one-way street. There is no communication if one person presents a message and no one listens or understands. Communication is most effective when another person listens, understands, and applies.

Teaching involves demonstrating skills and presenting knowledge, but learning does not occur until the students engage and understand. One of the most powerful ways to change what happens in the classroom is for teachers to think about planning instruction from the perspective of student learning. An easy way to enable teachers to embrace this perspective is to design student work in the form of problems and projects that link standards and benchmarks from multiple disciplines. By taking this approach, teachers

are more likely to shift their focus and think in terms of student learning rather than focusing on teaching.

Reduce Overloaded Curriculum

Several large-scale studies have confirmed what many educators already knew — the curriculum in the majority of U.S. schools is overcrowded. The Third International Mathematics and Science Study (TIMSS) and the International Center for Leadership in Education are among the organizations that have published reports on the subject.

In the most comprehensive effort to quantify the extent of the problem, researchers at Mid-continent Research for Education and Learning (McREL) compiled a comprehensive list of standards and benchmarks found in the major national standards documents. Across all subjects and grades, they identified 200 unique standards with 3,093 related benchmarks. They then obtained estimates from teachers on how long it would take to teach each benchmark adequately. The researchers calculated that it would take 15,465 hours to cover all of the standards and benchmarks. Yet, the most generous estimate of the instructional time students have during their academic careers was 9,042 hours.

Based on these findings, it would appear that although the standards and assessments being put into place across the country are intended to bring structure and clarity to school curricula, they often do just the opposite. In an effort to be comprehensive, far too many topics are labeled "essential," blurring the distinction between high-priority and low-priority topics. Districts, schools, and teachers must make this distinction themselves and attempt to filter the topics that are truly essential from those that are simply nice to know.

To zero in on what is essential for students, the International Center for Leadership in Education encourages districts to develop and analyze data to answer two questions: "What do students need to know to succeed in life?" and "What do students need to know to succeed on the test?" If a

topic fulfills either of these needs, it can rightfully be labeled a high priority. If it meets neither, schools and districts need to reexamine whether it is worth the investment of scarce instructional time.

Once priorities are set, using project-based instruction creates learning experiences that can include several standards. This enables schools to use time more efficiently to develop students' competence in standards. By using well-designed projects, a teacher can include multiple standards within a single lesson. This also allows for more in-depth instruction and reduces the superficial efforts of "covering" topics with little student retention.

Unified Perspective and Focus

One weakness in many schools is that teaching, testing, school improvement, and resources emphasize different skills and knowledge. A school may have highly qualified teachers, good assessments, abundant technology and library resources, and extensive professional development, but the sum of all of these parts may not lead to high levels of student achievement. Schools need to do more than create the components of effective schools; they must have all of these parts working in alignment and emphasizing similar perspectives. Applying the concept and levels of rigor and relevance is useful in bringing curriculum, instruction, and assessments into alignment.

Moreover, any organization is more successful when all of its activities focus on a goal and all functions are aligned with achieving that goal. Research has shown that the most effective schools have a laserlike focus on curriculum. This unity is easiest to accomplish in elementary schools, since most teachers are common branch teachers. In middle school and high school, however, teachers lack a common teaching situation, and they are deeply immersed in their own subjects. It is difficult for mathematics, science, and English language arts teachers to share a narrowly focused common objective. One efficient way that a school can embrace a common focus that cuts across subject areas is with student projects that connect multiple subjects, which lead to rigor and relevance.

Preparation for State Tests

The expansion of high-stakes testing programs over the last decade has led many teachers to "teach to the test." Some have criticized this focus as detrimental to "real" learning. However, teaching to the test is not bad as long as it is a good test. States are working to make the tests more criterion-referenced, better aligned with state standards, more valid, and without bias. These tests are also becoming more difficult, and efforts are under way to create questions that demand complex thinking.

There is a common misconception that state tests include only low-level recall multiple-choice questions. The International Center for Leadership in Education's review of these tests has revealed that many do include complex questions, high rigor, and application of knowledge.

Rigor/Relevance Framework

The Rigor/Relevance Framework, developed by the International Center for Leadership in Education, is a tool to examine curriculum, instruction, and assessment. It quantifies rigor and relevance, which enables teachers to increase the levels of both in their instruction. The Rigor/Relevance Framework can be a uniting curriculum structure across all disciplines in the small learning community.

The Rigor/Relevance Framework is useful in developing interdisciplinary units because of the need to be more specific on the level of student performance. When teachers desire student achievement at high levels of rigor and relevance, instruction naturally moves to more interdisciplinary applications. When students are expected to perform original research or solve real-world problems, their learning quite naturally crosses several disciplines. This approach is an effective way to develop the theme of an academy in small learning communities.

The Rigor/Relevance Framework begins with the continuum of knowledge that describes the increasingly complex ways in which we think. The

RIGOR/RELEVANCE FRAMEWORK

K N O W L E D G E **T A X O N O M Y**

Evaluation 6

Synthesis 5

Analysis 4

C
Assimilation

D
Adaptation

Application 3

Comprehension 2

A
Acquisition

B
Application

Knowledge/
Awareness 1

APPLICATION MODEL

1	2	3	4	5
Knowledge in one discipline	Apply in discipline	Apply across disciplines	Apply to real-world predictable situations	Apply to real-world unpredictable situations
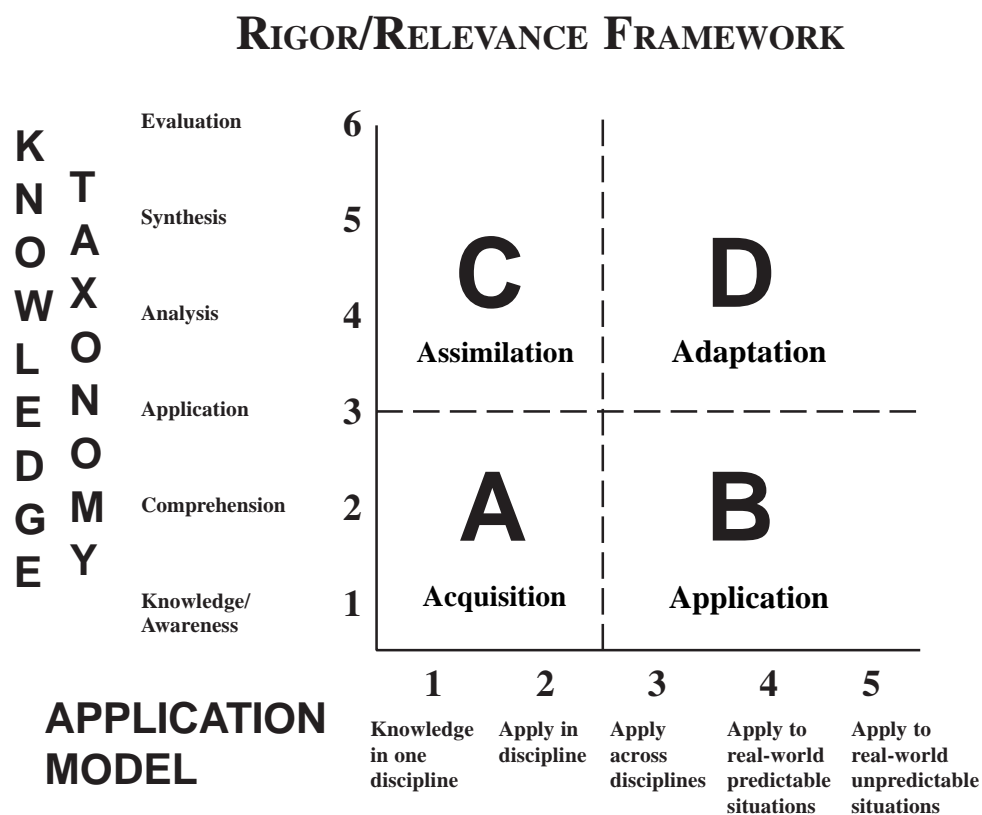
The Appendix/
CD-ROM has a
handout of the
Rigor/Relevance
Framework.

Knowledge Taxonomy is based on the six levels of Bloom's Taxonomy: (1) awareness, (2) comprehension, (3) application, (4) analysis, (5) synthesis, and (6) evaluation. The low end of this continuum involves acquiring knowledge and being able to recall or locate that knowledge in a simple manner. Just as a computer completes a word search in a word processing program, a competent person at this level can scan through thousands of bits of information in the brain to locate the desired knowledge. The high end of the Knowledge Taxonomy labels more complex ways in which individuals use knowledge. At this level, knowledge is fully integrated into one's mind, and individuals can do much more than locate information.

They can take several pieces of knowledge and combine them in both logical and creative ways. Assimilation of knowledge is a good way to describe this high level of the thinking continuum. Assimilation is often referred to as a higher-order thinking skill. At this level, the student can solve multistep problems and create unique work and solutions.

The second continuum, known as the Application Model, is one of action. The five levels of this continuum — (1) knowledge in one discipline, (2) apply in discipline, (3) apply across disciplines, (4) apply to real-world predictable situations, and (5) apply to real-world unpredictable situations — describe putting knowledge to use. While the low end is knowledge acquired for its own sake, the high end signifies action — use of that knowledge to solve complex real-world problems and to create projects, designs, and other works for use in real-world situations.

The Rigor/Relevance Framework has four quadrants. Quadrant A represents simple recall and basic understanding of knowledge for its own sake. Quadrant C represents more complex thinking but still is knowledge for its own sake. Examples of Quadrant A knowledge are knowing that the world is round and that Shakespeare wrote *Hamlet*. Quadrant C embraces higher levels of knowledge, such as knowing how the U.S. political system works and analyzing the benefits and challenges of the cultural diversity of this nation versus other nations.

Quadrants B and D represent action or high degrees of application. Quadrant B would include knowing how to use mathematics skills to figure the cost of goods sold in a retail business. The ability to access information in wide area network systems and the ability to gather knowledge from a variety of sources to solve a complex problem in the workplace are types of Quadrant D knowledge.

Each quadrant is labeled with a term that characterizes the learning or student performance.

Quadrant A – Acquisition Students gather and store bits of knowledge and information. Students are primarily expected to remember or understand this acquired knowledge.

Quadrant B – Application Students use acquired knowledge to solve problems, design solutions, and complete work. The highest level of application is to apply appropriate knowledge to new and unpredictable situations.

Quadrant C – **Assimilation** Students extend and refine their acquired knowledge to be able to use that knowledge automatically and routinely to analyze and solve problems and create unique solutions.

Quadrant D – **Adaptation** Students have the competence to think in complex ways and apply knowledge and skills they have acquired. Even when confronted with perplexing unknowns, students are able to use extensive knowledge and skill to create solutions and take action that further develops their skills and knowledge.

An in-depth explanation of the Rigor/Relevance Framework, along with staff development activities, is available in *Planning Rigorous and Relevant Instruction,* published by the International Center.

Here is an example involving technical reading and writing.

Quadrant A
Recall definitions of various technical terms.

Quadrant B
Follow written directions to install new software on a computer.

Quadrant C
Compare and contrast several technical documents to evaluate purpose, audience, and clarity.

Quadrant D
Write procedures for installing and troubleshooting new software.

Defining Rigor

A versatile way to define the level of rigor of curriculum objectives, instructional activities, or assessments is the following Knowledge Taxonomy Verb List. The Knowledge Taxonomy Verb List can be used either to create a desired level of expected student performance or to evaluate the level of existing curriculum, instruction, or assessment.

An example of student performance at various levels follows. Notice that each statement starts with a verb that comes from the appropriate section of the Knowledge Taxonomy Verb List. The expected achievement level for teaching about nutrition can vary depending on the purpose of the instruction. If a teacher only wants students to acquire basic nutritional knowledge, a student performance set at Level 1 or Level 2 is adequate. If the intent is to have a more significant impact on nutritional habits, then some of the objectives need to be on Levels 4 through 6.

BASIC NUTRITION	
Level	**Performance**
Level 1 – Knowledge	Label foods by nutritional groups.
Level 2 – Comprehension	Explain nutritional value of individual foods.
Level 3 – Application	Utilize nutrition guidelines in planning meals.
Level 4 – Analysis	Examine success in achieving nutrition goals.
Level 5 – Synthesis	Develop personal nutrition goals.
Level 6 – Evaluation	Appraise results of personal eating habits over time.

Each of the levels requires students to think differently. Levels 4 through 6 require more complex thinking than Levels 1 through 3. When creating lesson plans and student objectives, selecting the proper word from the Knowledge Taxonomy Verb List can help to describe the appropriate

Knowledge Taxonomy Verb List

1

Knowledge

arrange	match
check	name
choose	point to
find	recall
group	recite
identify	repeat
label	say
list	select
locate	write

2

Comprehension

advance	interpret
calculate	outline
change	project
contemplate	propose
convert	reword
define	submit
explain	transform
extrapolate	translate
infer	vary

This list is in the Appendix/ CD-ROM.

3

Application

adopt	manipulate
capitalize on	mobilize
consume	operate
devote	put to use
employ	relate
exercise	solve
handle	start
maintain	take up
make use of	utilize

4

Analysis

assay	include
audit	inspect
break down	look at
canvass	scrutinize
check out	sift
deduce	study
dissect	survey
divide	test for
examine	uncover

5

Synthesis

blend	develop
build	evolve
cause	form
combine	generate
compile	make up
compose	originate
conceive	produce
construct	reorder
create	structure

6

Evaluation

accept	grade
appraise	judge
arbitrate	prioritize
assess	rank
award	rate
classify	reject
criticize	rule on
decide	settle
determine	weigh

performance. Start with a verb from the desired level and finish the statement with a specific description of that skill or knowledge area. The Knowledge Taxonomy Verb List can also be used to evaluate existing lesson plans, assessments, and instructional experiences. Looking for verbs and identifying their level will give a good indication of the level of student performance in that instruction.

Defining Relevance

See the following pages
for the
Application Model
Decision Tree,
which asks the questions:

Is it application?

Is the application real-world?

Is the outcome unpredictable?

The Application Model
Decision Tree is in the
Appendix/CD-ROM.

Defining the level of relevance of curriculum objectives and instructional activities is a little more difficult than determining the knowledge level because there is no verb list. However, just as the Knowledge Taxonomy categorizes increasing levels of thinking, the Application Model describes increasingly complex applications of knowledge. Any student performance can be expressed as one of five levels of the Application Model Decision Tree. The Application Model Decision Tree can assist in setting the performance in application.

Use the Application Model Decision Tree to describe the desired level of student performance. Start by writing draft statements of student objectives. Then use the Application Model Decision Tree to reflect on and revise these statements.

The Application Model Decision Tree focuses on the three key characteristics that distinguish levels of the Application Model Decision Tree: application, real-world, and unpredictability. The second page of the Application Model Decision Tree offers additional criteria to determine whether an objective meets the test of application, real-world, and unpredictability. The Application Model Decision Tree can also be used to evaluate existing lesson plans, assessments, and instructional experiences.

Application Model Decision Tree

Step One

Directions: Select a task, application, or activity and then answer the following questions. See the following page for clarification of the questions.

Is it **application?** —————— NO ——————▶ **Level 1** Knowledge in one discipline

YES

Is the application **real world?** –NO▶ **Is more than one school subject involved?** –NO▶ **Level 2** Application in one discipline

YES

YES ——————▶ **Level 3** Interdisciplinary application

Is the outcome **unpredictable?** —————— NO —————▶ **Level 4** Real-world predictable application

YES ——————▶ **Level 5** Real-world unpredictable application

Application Model Decision Tree

Step Two

Directions: Use the following statements to clarify where a task, application, or assessment belongs on the Application Model Decision Tree.

YES

Requires use of knowledge.

Requires students actually to practice steps in a procedure.

Uses previous knowledge to solve problems, create a design, or communicate information.

Assesses performance.

Is it application?

Requires only recall or understanding.

Requires learning steps in a procedure.

Requires memorization of facts or formulas.

Assesses content knowledge.

NO

YES

Application occurs in same way it is used by adults.

Standards for performance are the same as for adult roles.

Students have access to real-world resources (tools, references, etc.).

Task must be completed in the same time frame as in real world.

Is the application real world?

Application occurs only in school.

Lower standards of performance are acceptable.

Resources are limited.

Students have extended time to complete task.

NO

YES

Application has uncertain results.

Unknown factors are involved (environment, people, time).

Students have individual and unique solutions to problems.

Is the outcome unpredictable?

Application involves routine solution.

Parameters are controlled.

All students complete similar designs or solutions.

NO

Creating Small Learning Communities

The following Basic Nutrition example is similar to the example in the Defining Rigor section in that it uses nutrition to describe student performance at various levels. Each level requires students to apply knowledge differently. Similarly, the expected achievement level for teaching about nutrition can vary depending on the purpose of the instruction. If a teacher wants students only to acquire basic nutritional knowledge, a student performance set at Level 1 is adequate. If the instruction is intended to have a significant impact on nutritional habits, then some of the objectives need to be at Levels 4 and 5.

Basic Nutrition

Level	Performance
Level 1 – Knowledge in One Discipline	Label foods by nutritional groups.
Level 2 – Application in One Discipline	Rank foods by nutritional value.
Level 3 – Interdisciplinary Application	Make cost comparisons of different foods considering nutritional value.
Level 4 – Real-world Predictable Situation	Develop a nutritional plan for a person with a health problem affected by food intake.
Level 5 – Real-world Unpredictable Situation	Devise a sound nutritional plan for a group of 3-year-old picky eaters.

Evaluating and Setting Levels of Rigor and Relevance

Once teachers in the small learning community are familiar with the Rigor/ Relevance Framework, they can examine curriculum objectives, instructional activities, assessments, and commercial materials they are considering using to determine levels of rigor and relevance. They can

Please see Appendix/CD-ROM for the Rigor/Relevance Framework Worksheet.

also create curriculum objectives, instructional activities, and assessments with the level of rigor and relevance desired.

Why is this useful? One of the principles of effective learning is congruence among curriculum, instruction, and assessment. That means make sure that the levels of rigor and relevance are consistent throughout a lesson. For example, if a teacher has lofty curriculum objectives in Quadrant D – high rigor/high relevance but develops instruction and assessments in Quadrant A – low rigor/low relevance, students would be unlikely to achieve those high expectations. Similarly, if a teacher creates high-rigor instructional activities but uses a low-rigor assessment, the test would not be an accurate indication of what students had learned. Teachers can use the Knowledge Taxonomy Verb List and the Application Model Decision Tree to draft, examine, and modify curriculum objectives, instructional activities, or assessments to get them to the desired level. The Knowledge Taxonomy Verb List provides verbs to expand into objectives or test questions. The Application Model Decision Tree helps categorize draft objectives or test questions. The instructional leadership team can use the Rigor/Relevance Framework in discussions with teachers and for classroom observations in the small learning community.

Rigor, Relevance, and State Assessments

Creating a small learning community does not relieve a school of the challenge of state tests. However, creation of a small learning community should enable the school to better prepare students for the test. One of the ways to prepare for state assessments is to know what is on the test, not the actual questions, which are typically secure, but the types of questions and content covered. Most states make the test specifications available so that teachers will understand which standards are covered. In addition, it is important to know the types of questions in order to prepare students by giving them practice on local tests with the same types of questions. A third aspect is the difficulty of the questions. This is where the Rigor/Relevance Framework is useful.

By analyzing sample test items or previously published tests using the Rigor/Relevance Framework, teachers can have a more complete picture of the test expectations. Test questions can be categorized into the four quadrants. Quadrant A questions are primarily recall of information and single-step problems. Questions that are in Quadrant C are more rigorous, are usually multistep, and often have students supply their own information to solve the problem. Most teachers recognize that Quadrant C questions are more difficult because they require higher-level thinking skills.

Questions can also be more difficult if they are more relevant. In an effort to encourage more application of knowledge, state exams are adding relevant application questions. Quadrant B questions do not require complex thinking but do require real-world application. Usually these questions have more information about the problem situation. This often makes the problem more difficult since there is more information than is necessary to solve the problem; students must sort out the information to answer the question correctly. Often there is not a single right answer. Moreover, these problems describe real-life situations with which some students may be familiar and with which other students may have limited experience. This means that students can have more difficulty with a question depending on their background.

Quadrant D questions combine the complexity of rigor from multistep problems that require original work and the complications of real-world situations and applications. Obviously, Quadrant D questions are the most difficult.

If students have experiences mainly with Quadrant A questions and then are confronted with a state test that has questions in the other three quadrants, they will have great difficulty. Students need to practice test questions in the same Rigor/Relevance Framework quadrant that they will see on the state test.

One way to prepare students for the state test is to analyze the level of rigor and relevance. States vary in emphasis. The following graphics show the results of analysis of the high school mathematics examination in two

States select different levels of difficulty for test items but rarely give clues as to which ones are more difficult, although occasionally the more difficult questions are assigned higher point values.

states. State X has a high percentage of less rigorous test questions, with a total of 75% in Quadrants A and B. State Y has a total of 52% in Quadrants A and B. State X has more relevancy in the test questions, with a total of 68% in Quadrants B and D. With this information, teachers can better prepare their students to master state assessments.

State X

	C	D
K N O W L E D G E	7%	18%
	A 25%	B 50%

APPLICATION

State Y

	C	D
K N O W L E D G E	26%	22%
	A 42%	B 10%

APPLICATION

Further information on understanding and applying the Rigor/ Relevance Framework is available in the *Rigor and Relevance Handbook,* published by the International Center.
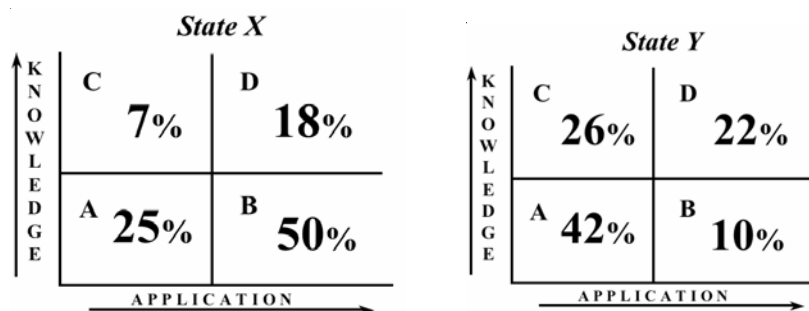
Student Activities in the Rigor/Relevance Framework

The examples of learning activities on the following pages illustrate the types of learning that can take place in each of the four quadrants of the Rigor/Relevance Framework. As a general rule:

Quadrant A – Acquisition
Experiences focus on recall or discovery of basic knowledge.

Quadrant B – Application
Activities provide definite opportunities for students to apply knowledge, typically to a real-world problem.

Please see Appendix/CD-ROM for the Rigor/Relevance Lesson Planning Checklist and the Rigor/Relevance Lesson Template.

Quadrant C – Assimilation
Activities are often complex and require students to come up with solutions that lead to deeper understanding of concepts and knowledge.

Quadrant D – Adaptation
Learning experiences are high in rigor and relevance and require unique solutions to unpredictable problems.

English Language Arts

6

Quadrant C Assimilation

- Compare and contrast literary styles of different authors.
- Relate literature to historical context.
- Discuss role of media in a democracy.
- Research limits of First Amendment freedoms.
- Analyze characters from a novel.
- Create a storyboard.
- Analyze and improve typical student writing.
- Role-play characters from literature in new situations.

Quadrant D Adaptation

- Write and perform a radio play.
- Simulate a presidential debate.
- Write a legal brief defending a school policy.
- Prepare a demonstration video.
- Review newspaper editorials for a week and write a letter to the editor expressing an opinion in response to one of them.
- Develop guidelines for publishing content on Internet pages.
- Develop a reading list of historical biographies for a middle level social studies course.

5

4

3

Quadrant A Acquisition

- Practice SAT vocabulary words.
- Select books and read to younger children.
- Read important works of literature.
- Give an extemporaneous speech.
- Learn several graphic organizers.
- Use word processing outlining and table tools.
- Write an essay on a historical topic.

Quadrant B Application

- Participate in a debate on a current political issue.
- Write a research report on a national problem.
- Identify and analyze typical body language traits.
- Create a personal or class Web site.
- Research a career field.
- Use word processing software to write a business letter.
- Prepare a multimedia presentation.

2

1

1   **2**   **3**   **4**   **5**

Mathematics

6

5

4

3

2

1

Quadrant **C** Assimilation

- Solve interdisciplinary problems with signed numbers, such as molecules with a charge of protons and electrons.
- Identify congruence of shapes from expressions and truth statements.
- Complete Euclidean proofs in geometry.
- Construct truth tables as a shorthand method for discussing logical sentences.
- Analyze factors in the difference between theoretical and empirical probability.
- Select best measures of central tendency to support a particular point of view.
- Solve quadratic equations and linear inequalities.

Quadrant **D** Adaptation

- Determine types of measurements/ calculations involved in designing everyday items.
- Make calculations of electrical load of appliances based on usage in homes in the community.
- Examine the different elements, visual effects, and features found in a computer game and use mathematics to design some of these elements.
- Create formulas to predict changes in stock market values.
- Design support posts of different materials and size to handle stress load in a building.
- Develop a sampling plan for a public opinion poll.
- Design a roller-coaster ride.

Quadrant **A** Acquisition

- Distinguish rational and irrational numbers.
- Simplify, factor, and compute polynomials.
- Solve and graph linear equations.
- Create and solve factorial expressions for permutation problems.
- Construct and solve for unknowns in ratio problems.
- Compute numbers with scientific notation.
- Predict the probability of events using ratios.
- Bisect line segments and angles.
- Provide examples to illustrate properties of real numbers.

Quadrant **B** Application

- Draw Venn diagrams to represent a set of real conditions, for example, common characteristics of students in class.
- Find length of line segments without measuring.
- Take measurements using calipers and micrometers.
- Calculate measurement error in real observations.
- Calculate frequency of vibration of various piano strings.
- Calculate medical dosages for different weight animals.
- Calculate mathematical values for an excellent golf swing.
- Plot changes in temperature at different altitudes from a NASA space flight.

1   **2**   **3**   **4**   **5**

Science

6

5

4

3

Quadrant **C** Assimilation

- Solve a hypothetical science-related problem, such as helping dinosaurs to survive.
- Design experiments and collect evidence to describe the movement of light.
- Design a WebQuest on an aspect of chemistry.
- Design observations to demonstrate basic laws of physics.
- Calculate potential and kinetic energy in the movement of a roller coaster.
- Create a digital electronic counter.
- Write test questions to illustrate understanding of empirical gas laws.
- Research the discovery of a chemical element.

Quadrant **D** Adaptation

- Explore designs of car safety restraints using eggs in model cars.
- Design and construct a robot.
- Conduct debate on genetically modified food (GMF).
- Solve an organic chemistry case study problem in petroleum distillation.
- Select a method to build a tunnel under a real city.
- Discuss the social, ethical, and emotional consequences of genetic testing.
- Participate in an online debate on a science issue, such as acid rain or deformed frogs.
- Research and write a newspaper article on a viral disease, examining economic and societal impacts.

2

1

Quadrant **A** Acquisition

- Conduct laboratory experiments to observe chemical reactions.
- Apply number and computation skills to science, including scientific notation and significant figures.
- Determine latitude and longitude of geographic locations.
- Use a mnemonic system for remembering metric conversions.
- Demonstrate modulation of sound waves using computer animation.
- Conduct experiments to observe properties of acids and bases.
- Memorize elements in Periodic Table.
- Make observations about the visual effects of concave and convex lenses.

Quadrant **B** Application

- Map a community site by collecting data with GPS device.
- Collect and categorize organisms from a natural stream.
- Apply Laws of Gases to design gas storage containers.
- Make weather forecasts based on data.
- Solve electrical current values using Ohm's law.
- Isolate DNA from unknown plant tissues and compare to sample DNA.
- Participate in an online collaboration to collect scientific data on a global problem.

1   **2**   **3**   **4**   **5**

Selection of Curriculum Themes

Many small learning communities, particularly at upper levels of high school, organize as an academy with a curriculum centered on a career area, such as business, human services, or the arts. Having a career theme is a good way to differentiate the learning community from other small learning communities and create a focus for teaching and learning. Several considerations in selecting career themes are listed as follows.

Build on Community Resources

There may be local resources, such as significant employment sectors and large employers, that would have a strong interest in supporting a career academy. For example, if a community has a number of employers in the finance and investment field, it would make sense to have a finance career academy. Local employers will be more likely to provide curriculum expertise, student work experiences, and financial support because the career academy brings attention to their industry and creates interest in students in pursuing careers in the field. Another example is university resources. If the local university has a well-respected engineering program, having a technology and engineering academy makes sense and could lead to an active partnership with the university.

Stay Broad Enough for All Job Levels

High school is about developing basic education skills and expanding student options. The career academy should not limit student employment options. It should be broadly titled to include jobs that require professional degrees, four-year degrees, two-year degrees, and employment directly after high school. Make sure the career academy focuses on all levels of jobs.

Use Multiple Career Clusters

Combining several career clusters is useful for having a broad enough focus to encompass many job levels. For example, Law Career Academy is narrow. Law, Government, and Public Service Academy is a broader theme.

The following are some of the common career academy themes for small learning communities.

- *Business and Finance*
  Careers in business management, marketing, office support, banking, insurance, and accounting

- *Construction and Architecture*
  Careers in residential construction, commercial construction, electricity, masonry, plumbing, drafting, and architecture

- *Environment, Agriculture, Science, and Technology*
  Careers in natural resources conservation, environmental protection, farming, agribusiness, and bioengineering

- *Human Services*
  Careers in medical assisting, social services, childcare, and teaching

- *Information Technology*
  Careers in computer information systems, networking, and computer applications training and support

- *Law, Government, and Public Service*
  Careers in government, politics, law, and community planning

- *Mathematics, Science, and Engineering*
  Careers for engineers, engineering technicians, chemists, biologists, science researchers, lab technicians, and biomedical researchers

- *Media Design and Production*
  Careers in video production, television, radio, desktop publishing, and printing

- *Health Science*
  Careers in health care, medicine, and biomedical research

- *Travel, Tourism, and Hospitality*
  Careers in travel planning, marketing, tour hosting, and food service

- *Visual and Performing Arts*
  Careers in dance, theater, music, stage design, video production, and costume design

Creating Small Learning Communities

Improving student learning requires deliberate interventions by teachers and other staff. The Rigor/Relevance Framework is helpful to teachers in facilitating high levels of student learning in the new school design.

Student learning is the result of a combination of facilitated instructional experiences and assessments. (See the Rigor-Relevance Learning Model.) Rigorous and relevant student learning starts with a specific expected student performance using the Rigor/Relevance Framework. After completing a unit, the teacher can reflect on the actual level of student performance and decide if it is necessary to modify and attempt to improve the instruction and assessment to attain higher levels of performance.

Planning Rigorous and Relevant Instruction

Education is often divided into three components: curriculum, instruction, and assessment. Curriculum is *what* students will learn, instruction is *how* students will learn, and assessment is the way to tell *how well* students have learned as a result of the instruction. Traditionally, these elements have been approached as three separate steps, one following the other. Many teachers learned to plan lessons using this linear model: decide what to teach, design how to teach it, and then decide how to measure student achievement.

Teaching also proceeds in a linear manner. Topics are introduced one after the other, often pausing only long enough for a chapter or unit test. Particularly at the secondary level, instructional planning focuses on covering the topics at a uniform rate of speed. This might have worked for low rigor/low relevance memorizing of facts for recall on multiple-choice tests. However, when higher levels of rigor and relevance are expected of students, this linear model is not effective.

To attain higher levels of rigor and relevance, instruction and assessment must not be separate and linear, but rather interrelated. Good learning takes

Rigor-Relevance Learning Model

What

How

How Well

Student Learning

Expected
Student
Performance
Rigor/Relvance

Instruction

Assessment

Actual
Student
Performance
Rigor/Relevance

Student Learning

Reflection and
Improvement

This
graphic is
in the
Appendix/
CD-ROM.
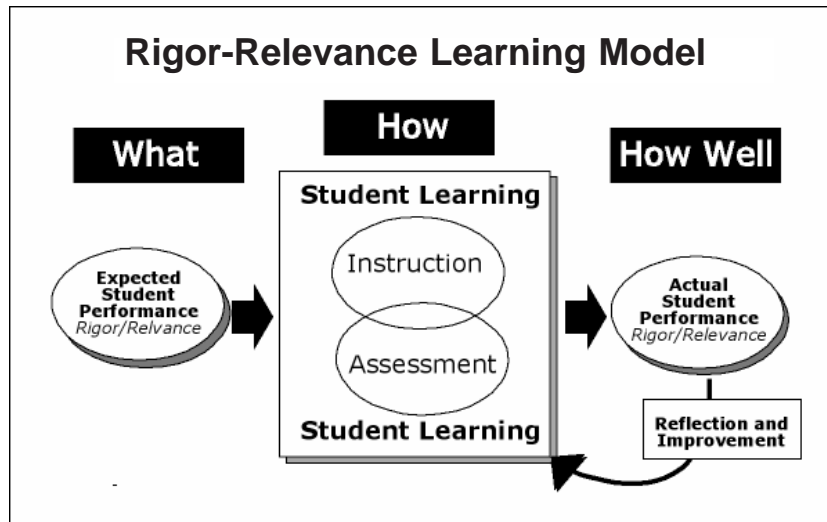
"Failing to plan" is a
prescription for
"planning to fail."

place when there is a dynamic linkage of all components. In rigorous and relevant learning, instruction and assessment should have significant overlap. Authentic assessment should occur more naturally as part of the instructional process. The current assessment reform movement seeks to place greater emphasis on student performance rather than on recall of facts. Teachers are better able to plan good instruction and assessment if they abandon the image of linear steps and of assessment following instruction.

Curriculum planning does occur prior to instruction and assessment. Without effective planning, there is very little likelihood that students will achieve the expected rigor and relevance. Curriculum planning is a complex process. It is much more than simply picking out a work of literature or a textbook chapter and deciding that it would make a good instructional topic. Teacher experience and data should be considered in order to make thoughtful decisions about instruction and assessment.

Creating Small Learning Communities

When teachers hear the word "curriculum," they generally think of unit or lesson plans that describe teacher procedures and/or student activities that would take place in a classroom. It is natural for teachers to think about these plans and immediately jump to imagine what they would look like in their classrooms. Teachers are under constant pressure to present activities that engage students, and there is precious little time to do much planning — such is the structure of the American education system.

While curriculum must lead to unit plans and lessons plans, curriculum planning does not begin with them. Teachers who begin and end their curriculum planning by writing a lesson plan miss important curriculum decisions.

The curriculum is a means to an end: a performance by the student. Teachers typically focus on a particular topic (e.g., volume of three-dimension figures), use a particular resource (e.g., Periodic Table of Elements), and choose specific instructional methods (e.g., problem-based learning) to cause learning that meets a given standard. However, each of these decisions is actually a step in a learning process that should end in a performance by the student. Student activity without an end performance in mind is busy work. Instruction, no matter how engaging or intellectual, is only beneficial if it ends with students demonstrating their knowledge and skills resulting from the learning experience. A performance approach to curriculum planning starts with the specific student performance.

Student activity without an end performance in mind is busy work.

A curriculum process that begins with the end in mind is referred to by Wiggins and McTighe in *Understanding by Design* as "backwards design." It may seem backwards to many teachers who move "forward" with textbooks, favored lessons, and time-honored activities rather than deriving those tools from targeted goals or standards. The *Understanding by Design* model is one of a number of excellent approaches to designing curriculum with the clear goal of student learning as the first step. Regardless of the model selected, teachers should start with the end — the desired results (goals or standards) — and then derive the curriculum from the evidence of learning (performances) called for by the standard and from the teaching needed to equip students to perform.

Ralph Tyler described the logic of backward design clearly and succinctly more than 50 years ago in Basic Principles of Curriculum and Instruction.

Wiggins, G., & McTighe, J. Understanding by Design

Backwards design may be thought of as purposeful task analysis: Given a task to be accomplished, how do we get there? What kinds of lessons and practices are needed to master key performances? This approach to curriculum design is a logical systems approach, but it runs contrary to conventional habits, whereby teachers think in terms of a series of activities or how best to cover a topic.

This backward approach to curricular design also departs from another common practice: thinking about assessment as something to plan at the end, after teaching is completed. Rather than creating assessments near the conclusion of a unit of study (or relying on the tests provided by textbook publishers, which may not assess state standards completely or appropriately), backwards design calls for teachers to think about the work the student will produce and how it might be assessed as they begin to plan a unit or course. Curriculum planning is a complex process that occurs prior to instruction and assessment. Without effective planning, there is little likelihood that students will achieve the expected rigor and relevance.

Backwards design calls for teachers to think about the work the student will produce and how it might be assessed as they begin to plan a unit or course.

Planning Steps

There are four major steps in planning rigorous and relevant instruction.

1. Define the Focus of Instruction
2. Create the Student Performance
3. Design the Assessment
4. Develop the Learning Experiences

The four steps are presented in the order in which ideal planning should occur.

Step 1 - Define the Focus of Instruction

This planning step ensures that the design of student work, content, and instructional activities is not random, but rather well-defined by the limits

Planning Steps for
Rigorous and Relevant Instruction

Step 1	Step 2	Step 3	Step 4
Focus of Learning	Student Performance Rigor/Relevance	Assessment	Learning Experiences

Data

Standards

Student

Best Practices

Reading

Alignment with Performance

Alignment with Assessment
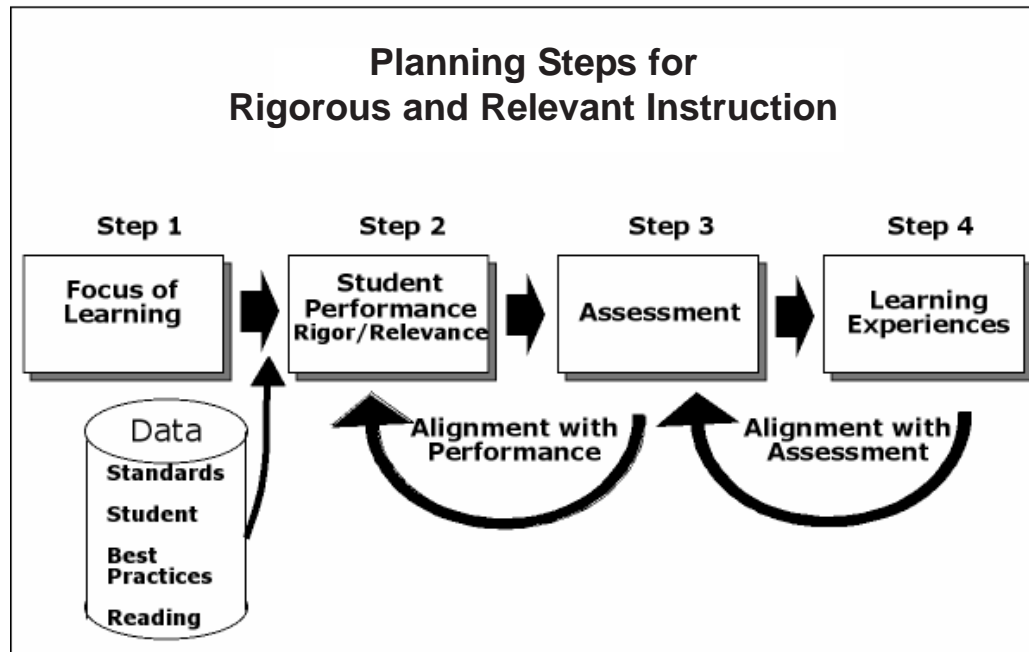
This graphic is in the Appendix/ CD-ROM.

of time, students served, and relationship to other units or courses. Begin by defining the audience and the context:

- For what group of students is this unit (grade level, previous experience)?
- Is there a unifying theme, problem, or project?
- What subject or subjects are included?
- Is there a specific standard on which the unit will focus?
- Is there a specific project students will complete or a problem to be solved?

Every curriculum planning effort requires a focus or two. This focus can be chosen from among many different things. It drives the decisions around curriculum planning and helps to define what would be an appropriate

performance and what is included in the curriculum. The following list has examples of focus areas.

- A **state standard** that should be addressed, such as "acquiring information from electronic sources"

- A **project** to design, such as a robot or a mechanical device

- A **problem** to resolve, such as a community issue or political question

- *A* **course description***,* such as Introductory Biology or Calculus

- An **interdisciplinary theme**, such as oceans, dinosaurs, or transportation

- An **interdisciplinary connection**, such as wave theory and communication devices (physics and technology)

- A **period in history**, such as the Renaissance or Industrial Revolution

- A **group of students**, such as high school juniors applying to college or students at risk of dropping out

- A **work of literature**, such as a biography or novel

- An **inquiry** into an intriguing event or observation, such as bird migration or solar eclipse

Step 2 – Create the Student Performance

Defining the student performance is divided into three phases; for each one, the answer to a question makes up part of the performance.

- First, do the competencies include knowledge, skills, behaviors, and concepts?

- Second, is the student work both described and labeled by the level or rigor and relevance that is expected?
- Third, does the cross-reference to state standards contribute to the definition of the expected performance?

In defining student performance, teachers should use objective data as well as their experience. In an era of increased accountability, teachers must use data to drive their decisions. Three categories of data are important in defining student performances: standards data, best practices data, and student data.

Standards Data — Knowing what the standards are in several disciplines is an important piece of data. Teachers should look beyond their own discipline's standards for interdisciplinary connections and opportunities to link performances to standards from other disciplines. This helps to reinforce student learning and use limited instructional time more efficiently.

One of the issues around standards is the overcrowded curriculum, wherein the standards collectively exceed the capacity of schools to teach everything in each and every standard. Teachers need to set priorities, and it is important that teachers make these decisions based on data rather than personal preference. Such data would include which standards are most likely to be tested and which standards are most important and useful to students in the world beyond school.

Best Practices Data — Teachers acquire effective learning approaches from experience and observations. With so many variables in schools, however, it is often difficult to predict that a certain practice will work in a certain situation. Therefore, emphasis is being placed on selecting instructional practices based on education research. Teachers can expand their repertoire of strategies and student performances through reviewing the research and conducting action research on their own practice.

The International Center for Leadership in Education has data that prioritizes state standards in its Curriculum Matrix publications. The Curriculum Matrix crosswalks a state's K-12 standards in English language arts, mathematics, and science to the state tests and to a survey on public perceptions. For more information, please contact the International Center for Leadership in Education.

A checklist on Standards Alignment is in the Appendix/CD-ROM.

Data-driven Curriculum Checklist

This checklist will help teachers to make curriculum decisions based on objective data
related to standards, students, best practices, and reading.

Yes   No

Standards

❑   ❑   Instruction is based on state standards.

❑   ❑   Instruction is based on high priority standards using Curriculum Matrix data.

❑   ❑   Students and parents are informed at the beginning of the year that the state standards
are included in your course.

❑   ❑   Integration of academic standards into arts or career and technical education is focused
on standards that are high priority and highly connection to the curriculum.

Students

❑   ❑   Student existing knowledge and skills levels have been determined.

❑   ❑   Student learning styles have been determined.

❑   ❑   You ask students about their interests and aspirations.

❑   ❑   You make home visits to meet parents and understand students' family situations.

❑   ❑   Instruction is differentiated to adjust to individual student differences in prior
experience and learning style.

Best Practices

❑   ❑   Teaching strategies have been researched and evaluated to determine effectiveness.

❑   ❑   You analyze the effectiveness of your innovative practices through action research.

❑   ❑   You observe other teachers in your subject or grade.

❑   ❑   You observe teaching strategies in different settings, e.g., watching a special education
teacher for ideas on classroom management or a technical teacher conducting a
problem-based learning activity.

Reading

❑   ❑   Reading levels necessary for competence on state tests have been determined.

❑   ❑   Reading levels of students have been determined.

❑   ❑   You know the reading levels required for students' career goals.

Student Data – Student performances need to take into consideration the prior experience of students, their interests, and their various learning styles. For example, a teacher could decide to have students engage in independent research to demonstrate knowledge gained in a specific area. If students have had little prior experience in conducting research, it may be disastrous to turn them loose and expect them to achieve the expectations. Some students may need more supervised performance before engaging in an independent activity.

Another area of modifying performances based on student data is competence in prerequisite skills and knowledge. Teachers need to know the existing performance levels of students in order to provide new experiences that build on prior knowledge.

Teachers also need to determine individual learning styles and interests to predict how students will respond to specific learning experiences. Depending on individual interests, students may need more encouragement or support for an activity.

The following are a few of the examples where teachers should modify student performances based on student data.

Reading Data — Educators know how important reading is to continued learning. At the secondary level, reading should be the responsibility of teachers in all disciplines. Students improve their reading proficiency when they receive guidance in content areas. Teaching reading in the content area involves knowing and incorporating reading and vocabulary strategies into instruction. In addition, there is reading data that teachers can use in planning instruction. One of the best open source measures of reading is the Lexile Framework for Reading® which can measure the levels of reading materials and readers.

Teachers should know the reading levels of their students in order to select text that is appropriately challenging. If the material is at a much lower reading level than the students, they will become bored. More common is

the assignment of reading materials that are far above the reading level of some students, who then fail to grasp the content and become discouraged. The Lexile Framework for Reading® can help teachers identify textbooks and other materials at the appropriate level for students.

Information on the reading research can be obtained from the International Center for Leadership in Education.

An additional type of reading data for teachers to know is the level of reading proficiency that students need to attain in order to succeed in adult life. Knowing this information can help to motivate students to improve their reading to a specified goal. Using Lexile measures, teachers found out the Lexile measure required for proficiency in state examinations and for such adult tasks as reading newspapers and income tax forms. The International Center for Leadership in Education has also analyzed hundreds of employee reading materials in various job clusters. This gives an accurate measure of reading required for working in various careers. This data helps to set expectations for students of the specific level of reading they will need beyond school.

2.1 - Competencies: Expected Levels of Student Knowledge and Performance

Please see Appendix/CD-ROM for worksheets on Brainstorming Student Performance and Defining the Rigor/Relevance of Student Work.

This step has two important purposes. The first purpose is to place emphasis on student learning. By thinking about what students need to know and be able to do, the curriculum planning process shifts its focus from the teacher to the student. The second purpose is to use the Rigor/Relevance Framework to analyze expected levels of skills and knowledge by following these tips:

- Statements used to identify the skills and knowledge should be as specific as possible. Include only one thought in each statement.

- Verbs should be used that indicate some action to be taken rather than the passive accumulation of knowledge.

- Once the statements are written, examine each statement to determine its level on the Rigor/Relevance Framework. Until a teacher is comfortable with the four quadrants of the Rigor/Relevance Framework, it may be easier to rate each statement according to its

level on the Knowledge Taxonomy and on the Application Model separately and then place it in a quadrant.

Many skills and concepts can be taught at several levels of complexity or difficulty. By using the Rigor/Relevance Framework in this planning step, a teacher can develop appropriate levels of instruction more accurately. When an expectation is set of real-world application by designating quadrant B or D on the Rigor/Relevance Framework, for example, there is a conscious commitment to work toward real-world application. Likewise, designating high rigor in quadrant C or D will require instruction that supports higher-level thinking skills.

2.2 - Student Work

Student work is at the heart of learning. Focusing on student work is also an excellent means of measuring the quality of instruction. Teachers can improve learning in their classrooms by concentrating on student work as part of curriculum planning. Student work is defined as the observable effort or tangible products produced by a student. Examples of observable efforts are group discussion, research, reading, troubleshooting a process, and brainstorming. Tangible products might include pieces of writing, science experiments, solutions to problems, test questions, and project designs.

> Learning does not occur without effort. Too often, that effort is measured by the hard work of the teacher rather than by the hard work of the student which results in learning.

Student work provides the most tangible evidence of the learning process. The best way to judge the quality of teaching and learning is by looking at the work that students are producing in the classroom.

- Is the work meaningful and challenging?
- Are all students actively engaged?
- Do students have a clear understanding of what constitutes outstanding work?
- Do students show commitment to and enthusiasm for their work?

> Student work is defined as the observable effort or tangible products produced by a student.

The answers to these questions provide rich evidence of the quantity and quality of learning taking place.

Teachers should spend time thinking about what significant pieces of work students will produce and not limit themselves by simply defining the content and objectives for what students will learn. Taking the time to reflect on student work will lead to more application in instruction and assessment.

By defining student work early in the planning process, teachers will have an indication of what is appropriate to assess. In most cases, the work should be used to evaluate the students. If this work is some type of performance, teachers should develop objective criteria to judge the quality. If the work involves gathering knowledge or memorizing facts, a multiple-choice or constructed-response test is appropriate. Using student work as the basis for assessment helps to identify clearly for students what it is they are expected to learn.

The information sheet, Examples of Student Work for Real-World Instruction, is a good reference for defining student work as a part of lesson planning. After identifying the skills and knowledge that students will acquire in the unit of instruction, select types of student work and expand them into a definition of specific work students might produce as a part of the unit. Again, the teacher should reflect on the levels of rigor and relevance to make sure the student work is consistent with the levels designated in the setting of student competencies.

Examples of Student Work for Real-World Instruction is in the Appendix/CD-ROM.

2.3 - Standards and Priorities

This step relates to why this unit is being taught and makes connections to:

- local, state, or national standards to which the topic is related (multiple standards if interdisciplinary/thematic unit)
- content tested on state tests
- what the community/public believes is essential for students to know and be able to do

Examples of Student Work
for Real-world Instruction

- Advertisement
- Audiotape
- Brochure
- Business
- Chart
- Community service
- Construction
- Contract
- Correspondence
- Debate
- Demonstration
- Design
- Diagram
- Discussion
- Display
- Dramatization
- Drawing
- Editorial
- Exhibit
- Experiment
- Field guide
- Graph
- Interview
- Invention
- Journal
- Letter
- Log
- Machine
- Magazine
- Manufacturing process
- Map
- Memo
- Mnemonic
- Model
- Mural

- News report
- Newspaper
- Oral history
- Oral report
- Painting
- Petition
- Photo album
- Play
- Poster
- Production process
- Proposal
- Questionnaire
- Questions
- Rap
- Relief map
- Research report
- Resume
- Rules
- Scale model
- Scrapbook
- Script
- Sculpture
- Sketch
- Skit
- Slide show
- Software application
- Solution
- Song
- Speech
- Story
- Survey
- Taxonomy
- Teach a lesson
- Test
- Videotape

A Scoring Guide Worksheet and several types of scoring guides can be found in the Appendix/CD-ROM.

Linking to standards is important, but it is more important to link to the highest priority standards. The International Center for Leadership in Education Curriculum Matrix rates importance of standards as high, medium, and low.

As part of curriculum planning, teachers must prioritize what will be taught and give careful attention to the most important knowledge and skills, such as those which form the basis for further learning. Making these decisions is challenging and complex. Teachers gain some knowledge of priorities through experience. However, with standards-based state assessments, decisions about which standards to teach, how much time to expend, and which instructional strategies to use have consequences beyond the course or grade.

Step 3 – Design the Assessment

In the Rigor-Relevance Learning Model, instruction and assessment will often occur together; however, assessment should be considered before planning instruction. There are many types of assessment, and no type is better than another. The point is to choose an assessment type that matches the student work. If the work involves learning a body of knowledge, a multiple-choice or short-answer test may be fine. If the work is a project or performance, a scoring guide/rubric would be more appropriate.

To ensure uniform criteria and understanding of what constitutes quality performance on assessments, common rubrics should be used across the curriculum in the various disciplines. Having a common standard, or benchmark, one that all staff follows, provides clear expectations to students and ensures that staff has a uniform understanding of the various degrees, or levels, of meeting benchmarks. With common rubrics, the performance that constitutes a 1, 2, 3, or 4 rating is similar regardless of the course of study the student is pursuing or the teacher the student has. Common rubrics are particularly important within the same discipline. For example, science teachers should have the same standards of performance on all lab work.

A writing rubric for use across the curriculum, 6 + 1 Trait Writing, is provided in the Appendix/CD-ROM. Permission has been granted by the copyright holder, Northwest Regional Educational Laboratory, to use this scoring guide.

In small learning communities, common rubrics become even more important in light of the interdisciplinary approach to instruction. Using the same rubric for writing, presentations, homework, and other common areas across disciplines reinforces the core academics and ensures a quality performance that all students, staff, and parents understand.

In some states, the education department provides rubrics for selected academic areas. This is often the case with writing. Where a state rubric exists, it is best to use it across the curriculum so that the standard of performance expected on state assessments is understood and consistent with acceptable performance throughout the school year.

State education department rubrics are usually available on the state's Web site.

Step 4 – Develop the Learning Experiences

Learning experiences are divided into five steps. The first two steps provide additional description of what students will learn.

4.1 - Content Knowledge

Performance planning emphasizes application of knowledge; however, without content knowledge, students have nothing to apply. One of the strengths of the Rigor/Relevance Framework is that it creates a connection and balance between content knowledge and application. Decisions about curriculum should not be a forced dichotomy between knowledge and application. Students must have both. To ensure a strong, direct connection of content knowledge and real-world applications, it is best to start with the end in mind. Develop a clear idea of the real-world application and select content necessary to achieve that goal. Content is not covered in instruction just because teachers know it or the textbook contains it.

Years ago, it was possible to convey to students most of the conventional knowledge about a subject. Today, there is too much information and too little time for students to learn all there is to know.

Decisions about what content to teach must be based upon how students will use the knowledge. That is, the content knowledge is based on the work in which students will be engaged. Instruction should focus on the body of knowledge necessary for an instructional unit.

International Center for Leadership in Education publications *Instructional Strategies: How to Teach for Rigor and Relevance* and *Instructional Strategies Teacher Handbook* provide tips, techniques, and self-evaluation checklists for using 17 of the most common strategies.

4.2 - Questions and Essential Concepts

Posing an initial question is an excellent way to introduce an instructional unit. A broad, open-ended question will pique students' curiosity and focus interest on the main concept(s) to be introduced or expanded in the lesson. The question should never have a simple yes or no answer, nor does it necessarily need to be resolved in the lesson. If a question engages students

A lesson is only as effective as its reflection in student achievement.

in learning, then it has done its job. Identifying essential concepts is the other part of Step 4.2. Concepts are those "big" ideas that connect bits of instruction. While remembering the details of a lesson is important, a teacher's greatest expectation is that students will carry away the overarching concepts that are the basis for future understanding.

4.3 – Strategies

Teachers should select and plan a series of varied activities that will enable students to develop and demonstrate the expected skills and knowledge for the instructional unit. As students engage in the activities, their work should be evaluated using specific objective criteria. The activities must be consistent with the levels of knowledge and application as well as closely connected to the identified student work set in Step 2.

Most teachers teach from their own experience, replicating the models of good teaching they have experienced. However, this approach does not work for all students. A lesson is only as effective as its reflection in student achievement. In some cases, students do not understand the content because of the manner in which that information is delivered. Teachers must search for strategies that work. Selecting the appropriate strategy for each situation, when coupled with the teacher's expertise, will lead to greater student learning.

The appropriateness of a particular instructional strategy to a given situation depends on matching the characteristics of the strategy, the learner, and what needs to be learned. Teachers should be familiar with many instructional strategies so that they can confidently select the best strategies for each situation.

Thirty instructional strategies are defined on the following pages. While each strategy is listed independently, the strategies are rarely used independently. When creating units of instruction, teachers generally combine several strategies. For example, a lecture may precede a demonstration and ultimately lead to a problem-based exercise.

Definitions of Instructional Strategies

Brainstorming stimulates thinking and allows students to generate vast amounts of information and then sort that information in an engaging learning process.

Community service involves learning opportunities in which students perform unpaid work that adds value to the community.

Compare and contrast learning activities require analysis to identify similarities and differences.

Cooperative learning places students in structured groups to solve problems by working cooperatively.

Creative arts are artistic products or performances that can also be used to develop skills in other curriculum areas.

Demonstration involves direct observation of physical tasks, such as the manipulation of materials and objects.

Games are exciting, structured activities that engage students in individual or group competition to demonstrate knowledge or complete an academic task.

Group discussion is any type of verbal dialogue among students used to explore ideas related to an instructional topic.

Guided practice refers to homework, worksheets, and computer practice wherein students solve routine problems to reinforce concepts or skills.

Inquiry engages students in posing questions around an intriguing investigation, making observations, and discussing them.

Instructional technology means a multimedia computer application that provides a choice of learning paths and enables tailoring of programs to student questions or interests.

Internship is a formal placement in an employment situation for additional learning while the student is still in school.

Lecture is a verbal presentation of knowledge by the teacher to the students, often supplemented by visuals and handouts.

Literature is reading to discover use of language; acquire information about people, history, cultures, and society; and develop skills of analysis, inquiry, logic, and recall.

Memorization is rehearsal for the recall of facts using techniques for remembering information, including mnemonic devices.

Note-taking/graphic organizer involves organizing logical notes for reference and using graphics, diagrams, and symbols to represent information.

Presentations/exhibitions are oral presentations by students requiring them to organize ideas and express them in their own words.

Problem-based learning introduces concepts through use of problem-solving skills on a real problem or investigation.

Definitions of Instructional Strategies (continued)

Project design requires students to integrate their skills and knowledge to create their own literary, technological, or artistic work, as individuals or in a group.

Recognition and **rewards** are motivational techniques used by teachers to provide positive feedback to students on their successful efforts and achievement.

Research means students locate and retrieve information from several sources, such as library references, textbooks, other individuals, and electronic databases via the Internet.

Review and **reteaching** refers to teachers' planned efforts to review previously learned content and assist students who may not have fully acquired the knowledge.

Setting objectives and **advance organizers** are initiating techniques teachers use to engage students in learning, including emphasizing what will be learned and presenting engaging questions or activities.

Simulation/role playing replicates the way skills or knowledge are used outside school, ranging from role playing to computer-generated virtual reality.

Socratic seminar combines the elements of teacher questions, inquiry, and discussion around key topics, with the teacher asking probing questions as needed.

Teacher questions stimulate significant student thinking in response to thoughtful queries about connections with new information.

Total physical response requires students to engage in a physical activity, as well as mental processes.

Video provides new information to students through visual presentation ranging from full-length commercial movies to short information or news segments.

Work-based learning presents opportunities for students to learn through on-the-job experiences ranging from job shadowing to full employment.

Writing makes students organize their knowledge and reinforces concepts in any form from a one-paragraph test-question response to a multipage research report.

Instructional Strategies and Rigor/Relevance Framework

Strategy	Acquisition Quadrant A	Application Quadrant B	Assimilation Quadrant C	Adaptation Quadrant D
Brainstorming	★★	★	★★★	★★★
Community Service	★	★★★	★★	★★★
Compare and Contrast	★★	★	★★★	★★
Cooperative Learning	★★	★★★	★★	★★★
Creative Arts	★	★★	★★★	★★★
Demonstration	★	★★★	★	★★
Games	★★★	★★	★	★
Group Discussion	★★	★★	★★	★★
Guided Practice	★★★	★★	★★	★
Inquiry	★	★★	★★★	★★★
Instructional Technology	★★	★★★	★★★	★★★
Internship	★	★★★	★★	★★★
Lecture	★★★	★	★★	★
Literature	★★	★★	★★★	★★★
Memorization	★★★	★★	★★	★

KEY ★★★ Ideal Strategy   ★★ Appropriate Strategy   ★ Least Appropriate Strategy

Instructional Strategies and Rigor/Relevance Framework (continued)

Strategy	Acquisition Quadrant A	Application Quadrant B	Assimilation Quadrant C	Adaptation Quadrant D
Note Taking/Graphic Organizers	★★	★★	★★	★★
Presentations/ Exhibitions	★	★★	★★	★★★
Problem-based Learning	★★	★★★	★★	★★★
Project Design	★	★★★	★	★★★
Recognition and Rewards	★★★	★★	★★	★★
Research	★★	★	★★★	★★★
Review and Re-teaching	★★★	★★★	★	★
Setting Objectives and Advance Organizers	★★	★★	★★	★★
Simulation/Role Playing	★★	★★★	★★	★★★
Socratic Seminar	★	★	★★★	★★★
Teacher Questions	★★	★	★★★	★★★
Total Physical Response	★★★	★★★	★	★
Video	★★	★★★	★★	★★
Work-based Learning	★★	★★★	★★	★★★
Writing	★★	★★	★★★	★★★

KEY   ★★★ Ideal Strategy   ★★ Appropriate Strategy   ★ Least Appropriate Strategy

The Rigor/Relevance Framework is also useful in selecting appropriate strategies. In the chart Instructional Strategies and Rigor/Relevance Framework, the 30 instructional strategies are rated as to their appropriateness for each quadrant of the Rigor/Relevance Framework. A three-star rating indicates a strategy that is most appropriate for that quadrant of learning. Two stars mean the strategy is suitable, and one star indicates that the strategy is less than ideal for the quadrant. Keeping in mind the strengths of each strategy helps to create effective instructional experiences.

4.4 – Resources

After deciding on the student work and the strategies to be used, the next step is to make a list of student and teacher resources that will be needed to carry out the learning experiences. This list is important to effective planning to make sure that all resources are available before instruction begins. It is also a useful point for thinking about needs. If the resources required exceed the realistic capacity of the school or teachers to provide this learning experience, this is the point to go back and revise the student work/strategies to make sure that they require manageable resources.

Interdisciplinary instruction is an effective and efficient approach to achieving a rigorous and relevant education for all students in small learning communities. Interdisciplinary instruction can:

Interdisciplinary Instruction

- help prepare students for a changing world.

- increase the number of students meeting achievement goals.

- apply research on learning.

- increase the number of standards taught in a limited school year.

What the Research Shows

Research shows that students learn more when they realize that what they are learning has a practical application to the world of work. Some research findings on how people learn and how to structure successful programs and schools are described briefly as follows.

Knowledge Is Best Acquired When Taught in Context

Brain research reinforces what many teachers observe — students retain knowledge best when it is connected to other experiences. One of the key recommendations of the Committee on the Science of Learning states:

> Knowledge that is taught in a variety of contexts is more likely to support flexible transfer than knowledge that is taught in a single context. Information can become "context-bound" when taught with context-specific examples. When material is taught in multiple contexts, people are more likely to extract the relevant features of the concepts and develop a more flexible representation of knowledge that can be used more generally.

Bransford, Brown, & Cocking (eds.). *How People Learn: Brain, Mind, Experience, and School*

Increased Achievement Results from Focusing on Students' Interests and Aptitudes

Although the theory of multiple intelligences was developed as a psychological theory, it has sparked a great deal of interest among educators because of its implications for teaching and learning. The application of multiple intelligences theory to education is a grassroots movement among teachers that is in its infancy. One use involves modifying traditional subject curricula; the theory of multiple intelligences offers teachers a number of different approaches to a topic, several modes of representing key concepts, and a variety of ways in which students can demonstrate their understandings.

Creating Small Learning Communities

The National Research Council reports that when instruction is based on students' interests and aptitudes and is appropriate to their learning styles, students are more motivated to learn. In the 1990s, as the call for teaching students how to use their knowledge began to capture the attention of more academic educators and administrators, the National Research Council found that academic performance improved for many students when they were taught in magnet schools and theme academies. Other models are schools-within-a-school and alternative schools. On a smaller scale, authentic assessments and problem-based learning gained acceptance. As achievement in magnet schools and theme academies continues to rise, the research base grows richer to validate the premise. This finding can be a powerful tool to promote interdisciplinary instruction and small learning communities.

Metacognition Essential for Continued Learning

In simple terms, metacognition occurs when a learner takes a new piece of information, examines its validity in relation to what else he or she knows about the subject, and then considers how it expands his or her understanding of the topic. Prior knowledge is important in determining performance. This includes knowledge about learning, one's own learning strengths and weaknesses, and the demands of the learning task at hand. Metacognition also includes self-regulation — the ability to orchestrate one's learning: to plan, monitor success, and correct errors when appropriate — all necessary for effective intentional learning. Often, metacognition takes place in classrooms when students consider information and talk about its application out loud. By talking about it, they are forced to think through the issue in more depth.

Interdisciplinary instruction and real-world problems encourage metacognition more than traditional subjects taught in isolation. The teacher disseminates knowledge, and the students listen and perhaps take notes. Learning should be an active process; instead, many students spend the school day watching their teachers work. To make learning active requires teachers to change how they teach.

Gardner, H.
Extraordinary Minds: Portraits of Exceptional Individuals and an Examination of Our Extraordinariness

As student achievement in magnet schools and theme academies continues to rise, the research base grows richer to validate the premise. This finding can be a powerful tool to promote interdisciplinary instruction and small learning communities.

Bereiter, C., & Scardamalia, M. "Intentional Learning as a Goal of Instruction"

Learning should be an active process; instead, many students spend the school day watching their teachers work.

Relevancy Leads to High Achievement

One of the significant national curriculum efforts in interdisciplinary instruction is High Schools That Work, sponsored by the Southern Regional Education Board. This program encourages the adoption of practices that include incorporating academic skills in career and technical education instruction, active student learning, and teacher collaboration.

Frome, P. *High Schools That Work: Findings from the 1996 and 1998 Assessments*

The research found evidence to support the hypothesis that meeting the curricular goals is related to meeting the achievement goals. A higher percentage of students in these schools meet the achievement goals when more students complete integrated instruction. More detailed research continues to show that teachers who use best practices in relating concepts to the real world contribute to higher student achievement.

High Expectations Correlate with Achievement

Any effort to introduce interdisciplinary activities must simultaneously include high expectations for all students. Research shows that students will try to rise to the level of expectation established for them. For interdisciplinary education, this means having high expectations for students' performance in all of the concepts involved from each discipline.

This research finding does not relate only to interdisciplinary instruction, but it is mentioned because of the strong research findings.

Using interdisciplinary instruction creates learning experiences that can include several standards. This enables schools to use student time more efficiently to develop competence in standards. It also allows for more in-depth instruction and reduces the superficial efforts of "covering" all topics with little student retention.

Interdisciplinary instruction is not an experiment in alternative learning. It is a viable, deliberate strategy to prepare students better for success in an increasingly complex world. Interdisciplinary instruction can also be part of the solution to achieving better performance on state tests for many students. Interdisciplinary instruction is also consistent with research on

learning. It remains only for teachers to look beyond the "way they were taught" and do the right thing for students by giving them rigorous and relevant learning experiences.

Models for Integration

There are many types and degrees of integration. These vary in how many teachers are involved. Integration may even be schoolwide. The various integration models can be grouped into one of five categories:

1. contextual
2. alignment
3. academy
4. project
5. immersion

Contextual

Contextual integration means teaching to the core standards in a subject either in a larger context or through application of those standards. For example, a math teacher introducing geometry concepts might teach them in the context of engineering. Students would explore measurement in engineering design and examine applications of geometric shapes to building construction. Contextual integration seeks to provide additional information around the application of knowledge or a concept to give students more "hooks" to remember the learning longer and understand what they learned more fully.

Alignment

Alignment is not technically integration; however, the result is that the student's learning experience becomes one of integration. Teachers of two subjects can reorganize their curricula to develop the alignment. The courses

set for alignment need to have some content connections. Teachers cover topics at designated times; often, the courses are taught sequentially during the day. For example, in courses in physics and technology systems, the science teacher might be teaching wave theory, and the technology teacher could be teaching communication systems. Students learn the theory in one class and practice the application in the other class.

This type of integration does not require significant changes to the school curriculum or the involvement of all teachers. This type of integration can be accomplished by a couple of teachers willing to modify their courses of study. Students can elect to take one or both courses. Those students able to take both aligned courses will experience greater integration of learning.

Academy

Academy models are the most popular and the most demanding to implement. In most academy programs, all courses are modified to include teaching content in the context of the academy theme. The advantage for students is that all instruction relates to their area of interest, since students in an academy typically have selected that program. For example, a school might adopt a mathematics, science, and engineering academy. All teachers would try to integrate themes from careers in those fields into their courses.

Academy programs require the involvement of all teachers and significant curriculum planning. Usually, this is not attempted all at once, but rather courses are gradually shifted to the career theme over several years.

Project

Project integration can occur within a course and also outside traditional courses. A good example is the senior project requirement in high schools. In this project, students pursue an area of interest that includes learning in

several disciplines. These projects usually involve real-world problems, such as a health or an environmental issue in which the student is interested.

Immersion

Immersion integration is learning in the real world or close to it. Students may learn from working in a job, though an internship, or in a work-based learning initiative. Schools also create school-based enterprises that can provide immersion learning. The student is exposed to real-world problems, and there is no delineation between courses. Learning is naturally integrated.

Model of Integration	Teachers Included	Extent of Integration	Courses
Contextual	Single	Varies	No change
Alignment	Two or more	Entire course	No change
Academy	All	Most courses	Titles remain the same but content changes
Project	Varies	Varies	No change
Immersion	Varies	Entire curriculum	Does not affect courses

Readiness for Interdisciplinary Instruction Checklist

Use this checklist to evaluate your school's readiness for developing interdisciplinary instruction.

YES NO

Getting Ready

❑ ❑ Teachers have a short list of priorities for instruction.
❑ ❑ Everyone knows the priority needs of the community.
❑ ❑ Staff members know key areas of state/standardized assessments.
❑ ❑ District has local curriculum standards and student competencies.
❑ ❑ Career and technical education and arts courses have been analyzed to identify content that supports academic standards.
❑ ❑ Career and technical education and arts teachers have a priority to reinforce academic standards.
❑ ❑ Teachers use a consistent process to develop instructional plans.

Getting Started

❑ ❑ Teachers have access to curriculum resources.
❑ ❑ Teachers have access to resources to help develop instructional plans.
❑ ❑ Local assessments are developed consistent with district and school priorities.
❑ ❑ Teachers have access to resources to develop local assessments.
❑ ❑ Teachers offer a variety of instructional activities and methods.

Doing It

❑ ❑ Applied academic courses are developed and offered.
❑ ❑ Professional development is provided on integrating academics and career and technical education and the arts.
❑ ❑ Team teaching of career and technical education/arts and academic teachers is practiced in school.
❑ ❑ A balance is achieved between recall assessments and performance measures.
❑ ❑ Parents are fully informed of options for students and referrals.
❑ ❑ Teachers facilitate instruction that supports the standards.
❑ ❑ Instruction is motivating to students, and they are actively engaged.
❑ ❑ Teachers exhibit interest in continual improvement.

Using the Planning Wheel to Develop Interdisciplinary Units

The planning wheel is useful for teachers and/or students as they begin to explore a theme from the perspectives of several disciplines. The following steps below can help teachers implement interdisciplinary instruction.

- **Select an organizing focus.** The theme, topics, unit, or concept placed in the center circle becomes the focus of the curriculum development. It will be broadened by the points of view of the disciplines involved. See Interdisciplinary Curriculum Worksheet #1– Brainstorming Student Work in Multiple Disciplines on the following page.

- **Brainstorm associations.** Each spoke is a discipline area. Brainstorm associations with the organizing focus at the hub of the wheel. The open-ended technique of brainstorming is used to generate spontaneous ideas, which are recorded on the wheel.

- **Establish student learning**. This step takes the brainstorming associations from the wheel and focuses on what students will learn. Before settling on an engaging student activity, the lesson begins to take shape, and the framework for the unit will develop naturally as student learning is established. Using the Rigor/Relevance Framework to determine the levels of cognitive skill development and relevance/ application will ensure the cultivation of higher-level thought processes and real-world applications.

- **Write teaching activities for implementation**. Means for achieving student learning should be developed next. Activity design tells what the students will be doing.
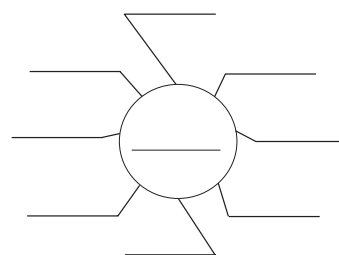
This worksheet is also in the Appendix/ CD-ROM.

See Interdisciplinary Curriculum Worksheet #2 — Establishing Student Learning in the Appendix/ CD-ROM.
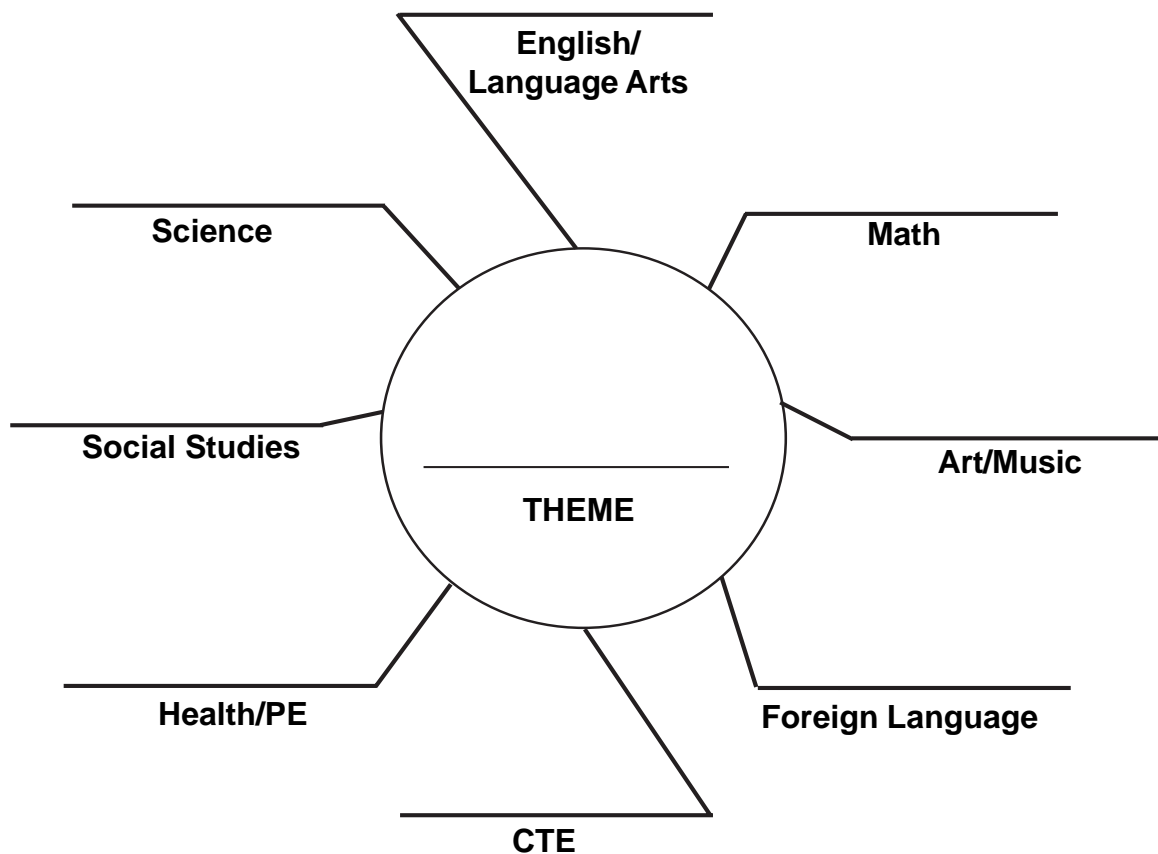
Interdisciplinary Curriculum Worksheet #1

Brainstorming Student Work in Multiple Disciplines

Directions: Working in interdisciplinary groups, brainstorm student work related to the theme in each subject area.

Theme _____ **Date** _____

Group Members _____

English/
Language Arts

Science

Math

Social Studies

Art/Music

THEME

Health/PE

Foreign Language

CTE

Creating Small Learning Communities

The small learning community is characterized by an atmosphere of teaming and collegiality among staff members and personalization and a sense of togetherness among students and between staff members and students. In order for this atmosphere to develop, the schedule needs to provide time together for teachers and students. Another key aspect of the small learning community is rigorous and relevant learning, which often is structured around a theme. This "contextualized" approach to learning requires extended time for in-depth activities that consist of real-world applications. In most small learning communities, extended time is provided through alternative scheduling techniques.

Time teaches all
things.
-- Aeschylus

Keeping Students Together

Regardless of the organizational structure of the small learning community, students are grouped together. Schedules are designed to place the students together in their courses. This contributes to the personalization and sense of identity that students find within their small learning communities. Having students scheduled together also enables teachers to provide integrated or interdisciplinary learning activities.

In a house structure, students stay together for the core academic courses at the minimum. In a magnet or academy structure, students stay together at least for the courses that are a part of the special focus. Ideally, students are together for all of their courses. In special courses such as Advanced Placement courses and band, all students cannot be kept together. These exceptions are understandable. If it is impractical or too costly to keep students together for all their courses, the magnet or academy teacher should at least have students from the magnet or academy scheduled together.

Providing Extended Learning Time

Extended learning time describes scheduling configurations that provide for longer class periods than the traditional 45-minute period. The extended

Longer instructional blocks help meet student learning needs and enable teachers to share common planning and instructional time, as well as provide an enriched, in-depth program of study.

learning periods translate into more time for students to spend on learning without interruptions and more time for teachers to develop instruction that consists of a deeper coverage of content and more real-world applications of subject matter. The additional time also gives teachers more time to apply a variety of instructional strategies to reach the diverse learning styles and needs of students. These larger blocks of time give teachers flexibility to provide a diversity of instructional activities.

Changing the schedule involves a major restructuring effort. Schools need to give sufficient time for the entire school community to examine the research and successful practice, assess the need, collaborate with all the stakeholders, ensure compliance with federal and state laws and regulations and employee contracts, gain awareness and support, and analyze the fiscal impact. Scheduling modifications usually mean more instructional and learning time. Thus, major professional development support is needed to assist teachers in relying less on the standard lecture and seatwork approach to learning and more on individualized learner approaches and creative teaching strategies.

This Q&A is also in the Appendix/CD-ROM as a handout.

Questions and Answers on Block Scheduling

Here are some questions that may be raised by teachers, parents, and students and suggestions for responses.

Question: **How will I teach in a longer class period?**

Answer: Staff will be provided professional development opportunities that will emphasize a variety of instructional strategies. Many methods of instruction, not just lecturing, are effective in extended class periods. Teachers will be encouraged (and compensated where possible) to develop exemplar learning units to share with other staff. Teachers who are already proficient in utilizing a variety of instructional techniques will share their expertise, materials, and resources.

Question: **Why are longer class periods better than the typical 45-minute period?**

Answer: With longer class periods, there is more time for students to spend on learning without interruption and more time for teachers to cover content thoroughly and provide real-world applications of the subject matter. Longer class periods also allow more opportunities for flexible groupings of students and a wider diversity of instructional activities. Longer instructional blocks give teachers more common planning time as well as instructional time. The personalization and teaming characteristics of a small learning community are strengthened with additional time for students and teachers to be together.

Question: **How will students spend their time for that long block? Won't they get bored?**

Answer: Keeping students engaged is key to successful block scheduling. The instructional commitment to rigorous and relevant learning translates into active engagement of the learner. Thus, less lecturing and more real-world applications of learning, a variety of instructional strategies, and more time on task keeps the learner learning.

Question: **Isn't there less instructional time under a block plan? How can the entire curriculum be covered?**

Answer: Basically, the amount of instructional time is not lessened under block scheduling. Administrative functions at the start and end of class periods are reduced with block scheduling. Having fewer courses in a semester cuts the time needed for these functions and provides extended time to devote to instruction. With block scheduling, schools typically align curriculum with standards and expectations.

Question: **Won't students forget information needed in subsequent courses with longer segments of time between sequential courses of study?**

Answer: Research demonstrates that retention of information is not a significant problem for students under a block schedule. Content is taught and applied more thoroughly with the longer time in a block schedule. Students remember better what they have had a chance to apply. Where there is a need for catch up, effective review brings the learner back on pace with instruction.

Question: **Aren't student absences problematic? If students are absent for a day, won't they miss twice the amount of class time?**

Answer: Making up work missed from absences is always difficult. Under a block schedule, the class time lost is basically the same as if the student were out for one day under a traditional schedule. With the block schedule, the time lost is in fewer subject areas.

Question: **What happens to elective courses? Is there time in a block schedule for these options?**

Answer: Elective course options are not eliminated or lessened in a block schedule. Actually, more courses may be offered over the course of a year under the block schedule. Elective course offerings can be expanded under block scheduling.

Question: **How do students who transfer from schools with traditional schedules adjust under a block schedule?**

Answer: Transfer students may experience some adjustment; however, procedures are usually developed for these students. Typically, credit conversions are determined.

Question: **What happens to failing students? Do they stay in a class for the full semester knowing that they will not pass the course?**

Answer: As with a traditional schedule, students are required to remain in the class. The opportunity to repeat a course may occur the next semester. Thus, the student does not have to wait an entire school year to start a course over. The extended period also is beneficial to students who are in need of academic intervention services. Under the block, students spend more time with teachers; content is presented in depth; and teachers use a variety of instructional strategies and activities.

Block Scheduling Methods

Block scheduling is the most frequently implemented form of alternative scheduling. "Block" defines any schedule format that has fewer but longer class periods than the traditional schedule, which has six to eight periods each day of no more than 45 minutes.

There are a variety of configurations and possibilities when designing a block schedule. When choosing a particular method, consideration must be given to the number of semesters, length of school year, length of school day, length of class period, single or double class periods, and frequency of class meetings (daily or alternate days). The most common models of block scheduling are described as follows.

Block or 4 x 4 Block

Under this plan, students attend four classes per day for a semester. Classes are 85-100 minutes in length. At the end of the semester, students have completed four full courses; in the traditional schedule plan, it would have required one full year to complete them. In the second semester, students

take four different courses. Some exceptions exist, such as for Advanced Placement and music classes. Full-year courses are maintained for these classes.

Advantages of the block 4 x 4 or block include:

- Students only have to focus on four courses per semester.
- Course preparation is less for both teachers and students.
- Teachers have fewer students each semester.
- Fewer textbooks and instructional resources are needed.

A/B Block

Using this method, students take eight classes for the entire school year divided into an A group and a B group. Each group consists of four classes that meet for approximately 90 minutes every other day. Thus, in this alternate day schedule, students and teacher meet every other day for extended time periods.

With the A/B block, there is increased instructional time on a daily basis. Students have fewer classes, assignments, and tests for which to prepare. The day off in between classes allows for "distancing time" in classes experiencing disciplinary or other problems.

Modified Block

This method combines some of the 4 x 4 block approach and the traditional 8-period schedule day. The schedule may provide a 4 x 4 block on four days during the week and a regular 8-period day on one day. Another version has students in two blocked classes each day along with three traditional shorter-period classes.

Flexible Schedule

In this plan, students follow a combination of the 4 x 4 block and the A/B block schedules. Class time varies from day to day. One example would be

having students attend 90-minute classes three days per week, and on the other two days students would take these classes for 75 minutes and have an additional advisement or resource period of 60 minutes.

The advantage of flexible scheduling is that more time is available for students to complete work, engage in short-term enrichment programs, and obtain additional assistance during the resource period.

Trimester Plan

With the trimester schedule, students take two or three courses for 60 days and earn six or nine credits per year. Variations within this plan include two long classes and one short class per day, two long classes and two short classes per day, and others.

The advantages of the trimester plan are that students focus on only a few courses per trimester, students and teachers prepare for fewer courses per trimester, teachers have a smaller student load per trimester, and fewer textbooks and instructional resources are required.

Advantages of Block Scheduling

A great deal of research has gone into the impact block scheduling has on student achievement. According to the research, there are pros and cons. For the small learning community, the pros seem to outweigh the cons.

Advantages for the Small Learning Community

One of the main advantages of a small learning community is the personalization factor. Teachers and students get to know each other better. With extended instructional time, there is more opportunity for this to occur. Also, teachers have fewer students, and students fewer teachers in the block scheduling designs. In career academies and magnet school organizational structures, real-world applications, project-based design,

and work-based learning are frequent instructional strategies in which students engage. These approaches are implemented more effectively with extended time. Extended time also allows more community and business representatives to assist with learning during the school day.

For teachers in a small learning community, the extended day provides the much-needed opportunity for common planning time. Team teaching, particularly of core academic subjects, is widespread in small learning communities. To deliver instruction effectively with team teaching, the team needs time to discuss instruction, both discipline specific and interdisciplinary approaches; assessment design and results; individual student strengths and areas needing improvement; achievement data; development of instructional strategies that are both rigorous and relevant and meet the diverse needs of students; and curricular alignment.

Advantages for Schools in General

Many if not all of the benefits associated with block scheduling in general apply to students and teachers in small learning communities. Some of the frequently mentioned benefits of block scheduling include the following:

For Students

- Develop stronger interpersonal relationships with teachers and other students
- Spend more time on task
- Study more in-depth
- Learn time management skills
- Experience more active learning rather than passive learning
- Have fewer teacher expectations
- Develop a deeper understanding of subject matter
- Have more one-on-one time with teachers
- Engage in more opportunities to apply knowledge to contextual and real-world situations

- Have fewer classes to prepare for or more time to prepare for classes
- Experience less stress
- Are less likely to fail
- Have better attendance rates and fewer tardies, suspensions, and dropouts
- May obtain better academic results
- Have more opportunities to engage in writing skill development
- Develop higher-order thinking skills and problem-solving skills
- Are better known by their teachers
- Experience more personalized learning
- Have more chances to start classes
- Are better able to focus on learning
- Master and retain subject matter better

For Teachers

- Experience less fragmented instructional time
- Spend more time on task
- Complete and evaluate instruction and instructional techniques
- Implement a variety of instructional strategies to address different learning styles and diverse student needs
- Able to focus on fewer subject areas
- Explore subject areas in greater depth
- Provide more opportunities for real-world applications of learning
- Reduce amount of lecturing
- Have opportunities for more one-on-one contact with students
- Have fewer classes to prepare for on a daily basis
- Gain opportunities for extensive personal interaction with students
- Know students well enough to adapt lessons to their learning styles, abilities, and interests
- Experience greater teacher communication and collaboration
- Appreciate opportunities for student projects and other instructional strategies requiring extended time
- Have fewer disciplinary problems
- Are better able to address discipline problems because of personal relationships with students and have more time in class to attend to these issues

- Can team teach more effectively
- Have greater opportunities for interdisciplinary/integrated learning
- Provide early interventions for students in need
- Teach students who are more engaged, motivated, and successful
- Have time for authentic assessment
- Possess a manageable workload
- Use a variety of interactive instructional approaches
- Have more time for parental contacts
- Find more opportunities for peer observations

Challenges to Be Addressed

Support and Acceptance

Perhaps the greatest challenge is to gain support and acceptance for changing a school schedule by finding the time for staff to engage in creating and planning for the new schedule. Typically, schools spend at least a year in the planning stages trying to ensure that all needs and concerns are addressed.

Professional Development

Professional development is another key component in the readiness plan for implementation of the schedule change. Teachers who have taught for years in a many-period day with short instructional blocks of from 35 to 50 minutes need extensive assistance in adjusting to a longer instructional time. Particular attention needs to be given to helping teachers incorporate a variety of instructional strategies in their practice. To teach successfully in large blocks of time requires not only stamina, but also a plan that enables the learner to engage directly in instruction. Teachers need professional development to help them learn how to give students opportunities to apply and synthesize what they know. Training in cooperative learning, project design, problem-based learning, research, inquiry, and work-based learning strategies is needed for teachers to vary instruction and to provide the opportunity for in-depth and application-based learning.

Scheduling Music and Advanced Placement Courses

Music and Advanced Placement (AP) courses are expected to be yearlong. For Advanced Placement courses, convention wisdom is that they should be taken just prior to AP exams. If a course does not run yearlong, students could complete it a full semester before the test. Music enrollment often declines when students must choose between a music course and an enrichment class. Both music and AP courses can be accommodated and integrated successfully into a block schedule. It may take some creative scheduling, but it can be accomplished. An AP course, for example, may be offered as 1.5 credit course one semester and .5 credit course another. On the 4 x 4 block, music can alternate with another class over the course of a year.

Less Actual Class Time

Under some plans, class time may drop. Teachers then become concerned that they do not have adequate time to cover all the requirements of state standards and testing under *No Child Left Behind.* What this actually forces school communities to do is engage in a prioritization process to determine what must be taught as opposed to what is nice to know or what a teacher likes to teach. Prioritization leads to curriculum alignment and curriculum mapping. This ensures students receive instruction in required areas of study.

Transferring

Students who transfer from one school to another with a different scheduling method may have difficulty adjusting to the new schedule. Subjects and time blocks may be different, and the student may not find the new schedule compatible with the old one.

Absences

Under a block schedule, double the amount of time is lost when students and/or teachers are absent. Catching up on work missed and filling in a wide gap between classes may be problematic for some students.

Successful Implementation of Block Scheduling

In any significant restructuring within a school, there needs to be a common vision, a well-thought-out plan, strong support from stakeholders, and many opportunities to learn about and understand the proposed initiative. Changing a school schedule requires all of these.

Some implementation suggestions that will enhance preparation and planning when thinking about changing to a block schedule include:

- Be familiar with the block schedule and the research behind it

- Consult with/visit schools, students, and educators who are engaged in a block schedule

- Involve students, teachers, administrators, and parents in the process; feedback and support from all is essential

- Provide professional development on effective use of class time

- Give staff time and opportunity to identify resources needed to adapt to the change

- Pay attention to course sequences and teacher contract requirements

- Seek constant evaluation of change in scheduling.

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Chapter
4   Logistics

Shared Facilities

Large comprehensive high schools that create one or more small learning communities within the existing structure have a unique problem — shared facilities. Most schools are designed around functions rather than groups of students. How do several "schools" use a single science laboratory?

Generally, schools are designed for efficiency and cost effectiveness by having a single gymnasium, library, and cafeteria. When smaller learning communities are created in the existing school structure, they have a facility barrier in trying to keep students in the small learning community together and organized into a closer community.

Each small learning community is usually located in an area of a school, such as a single wing or floor. This enables students and staff to have maximum interaction and minimum distraction by coming in contact with large numbers of students. If students from small learning communities move freely about a large school building and mingle often with students in other communities, some potential benefits of small learning communities soon disappear.

Facility sharing problems should be analyzed and solutions planned before the transition to several small learning communities in a single facility. Following is a list of facilities that are often shared by multiple small learning communities.

- physical education facilities (gymnasium, weight room, pool, athletic fields)
- library/media center
- cafeteria
- auditorium
- administrative office
- attendance office
- counseling office
- health facilities

- computer laboratory
- school entrance and security
- science laboratories
- career and technical education shops and laboratories

Creating Multiple Facilities

One method of resolving facility problems is to create multiple facilities or alternatives to using the traditional facility. Creating additional facilities may be prohibitive in cost, but there are often lower cost alternatives that could be created. In each case, the school leadership will have to weigh the costs, the contribution to educational programs, and the risk to preserving the small learning community. Not using some of the existing facilities in a school may seem limiting, however, the educational experience of students must be the priority of the small learning community. Some small learning communities are created in inadequate facilities such as storefronts, temporary modular classrooms, and warehouses. Using only some of the existing facilities in a large school that is subdivided is more than many small learning communities have available. Keep the focus on the needs of the students in the small learning community and plan the use of facilities to meet their needs. It may not be essential to use every facility simply because it exists or has been used previously.

School Entrance and Security — Consider setting staggered starting times, having separate security checks, or using a side entrance to maintain a separate entry for students in the small learning community. Teachers in the small learning community should be present at the entrance to aid in welcoming their students.

Physical Education Facilities — Consider staggering programs so that indoor and outdoor activities occur at different times for different small schools. Also, consider alternative physical education experiences that do not require facilities.

Administrative and Attendance Offices — Set up multiple offices in each small learning community location.

Career and Technical Shops and Laboratories — When creating thematic/career academies, individual shops and laboratories can be assigned to separate small learning communities.

Science Laboratories — Science laboratories can be created using carts with computers, probes, and instruments to be used in traditional classrooms that are only devoted to science for part of the day.

Computer Labs — Use portable carts and notebook computers to move technology where it is needed and quickly convert a classroom to a computer lab.

Cafeteria — Most schools have staggered lunch periods anyway, so each small learning community can schedule lunch at a common time for the students in that community.

Library – Books will probably need to be shared just as in a community library. However, electronic media resources and computer-based catalogs can be made accessible in multiple areas for the convenience of each small learning community.

Sharing Management

Following are suggestions for managing scheduling issues related to facilities that still must be shared.

Appoint a Facility Manager

One person should be appointed to handle scheduling of common facilities. Procedures should be established as to when and how these shared facilities can be used and how students will move between their areas of the school

and the common-use facility. Teachers in each small learning community should have access to the facility manager to schedule facilities. Principals of each small learning community should meet regularly as a group with the facility manager to address scheduling issues.

It is important that the facility manager not be on a superior administrative level to the principals. When this is the case, it tends to place the facility manager in the role of principal of the entire school and make the principals more like assistant principals in charge of a group of teachers and students. In this scenario, facility issues are apt to take precedence over student needs in the small learning communities.

Think Creatively

Just because a facility feature was used in the past does not mean that it always has to be used in the future or that it is essential to the success of the school community. The focus needs to be on the student learning objectives of the small learning community. Think creatively about how the existing facilities can be used to help teachers and students achieve those objectives.

Finance

Finance issues for a small learning community are the same as for a large school. Actual budgeting will depend on the school district and the distribution of decision making between the district and the school. With a small school community, there can be increased costs because of the loss of some economies of scale. A small learning community is more likely to have small classes because of the emphasis on close relationships between teachers and students. This priority reduces the student-teaching ratio and often leads to increased staffing costs.

As you consider some of the budgeting and finance issues, it is necessary to be creative in reallocating resources and using funds more effectively. Following are some ideas for reallocation.

Reallocation of Resources

Special Education Staffing

Use in-class consultation models for academic support by placing special education aides in regular classrooms with their colleagues instead of in a resource room. This model provides adult support for special education students and also puts another adult in the classroom, making it easier for the classroom teachers to facilitate differentiated student-centered instruction.

Title I Staffing

Title I provides staffing for giving additional assistance to students who are below basic skills levels in high-poverty schools. Title I teachers can also serve on instructional planning teams. In addition, consider the use of Title I funds for school-based professional development.

Late Arrival/Early Release Time

One of the most expensive components of staff development is paying teachers for the time involved. It is expensive to reimburse teachers for summer or weekend staff development. Many schools use periodic late arrivals or early dismissal of students to create time for planning and school-based staff development. The reduced student time does not reduce attendance aid or cause significant impact student on achievement.

Academic Teams

Keep the overall student-teacher ratio, but reduce the periodic ratio by organizing academic teams of teachers. Encourage teachers to team teach and share students between teachers. With this flexibility, teachers can increase class size when activities will allow it and reduce class size when needed for specific student activities.

Substitute Teachers

If there is no planning time in the existing schedule, use substitutes to free up team teachers for common planning time to work on curriculum and develop coherence across grades. Just as elementary schools use art, music, and physical education teachers to create planning time for classroom teacher, small learning communities can use permanent or periodic substitutes to rotate among classes and create joint planning time for teacher teams.

Administrative Teaching

Modify administrative staff roles to allow administrators to provide occasional teaching. This not only keeps administrators current with student needs but also frees up teacher time for planning.

School-based Professional Development

Keep professional development costs down and make it more effective by using school-based professional development. Give lead teachers responsibility to plan professional development. Bring in expertise and experts only when necessary. Challenge teachers to engage in individual and group self-directed professional development. Have teachers engage in action research to evaluate the effectiveness of their own innovations.

Department or Team Budgets

Rather than treating everyone equally and making financial decisions at a school level, delegate these decisions to department or academic teams. These groups may have different spending priorities. They will invest in items that benefit their instructional program the most. This may not reduce costs but will increase benefit to the instructional program from a single investment.

Convert Meeting Time to Professional Development

Use full faculty meeting time to create two- to three-hour blocks for professional development and study groups. Use alternative means (e-mail, school mailboxes) to distribute announcements and routine information.

Increase Instructional Time

Block scheduling and modular scheduling can reduce student passing time. Convert this to productive time for instruction. Analyze administrative tasks done by teachers and explore alternatives to reduce this non-instructional time in the classroom.

Sports and Extracurricular Activities

Meeting Students' Interests

Like their counterparts in large comprehensive high schools, students in small learning communities need to explore interests, build relationships, and develop skills to participate in leisure time and recreational activities. High school is a time for academic growth and the beginnings of career competency, but it is also a time when youth participate in a variety of sports and other extracurricular activities. These opportunities, depending upon their quality and focus, are also excellent means of integrating core academic skills and developing personal skills and guiding principles.

Influence of Structure on Opportunities

Extracurricular activities depend greatly upon the organization of the small learning community and the facility in which it is housed. If the small learning community has its own facility with no direct connection to a "sending" comprehensive high school, then the small learning community should offer a variety of sports and other extracurricular activities to meet its students' needs. The scope of these offerings will depend on school size and facilities. However, since the school is small, these activities allow for maximum participation of students.

Charter Schools

The charter school functions as a separate entity from the district in which it resides. If the charter school contains one or more small learning communities, then the extracurricular activities available to students are usually developed at the direction of the student body and their families. Typically, a wide range of athletic opportunities exist in these situations. Students often can participate in interscholastic sports programs such as football, baseball, and basketball or engage in noncompetitive sports such as skiing, weightlifting, and hiking. If the charter school engages in interscholastic competitions, it should have an athletic director on staff. If a sport is not available to students at the charter school, then, depending on state rules, the students may participate at the district's high school.

Similar opportunities for extracurricular participation may exist for students in charter schools in other areas. Once again, if an activity is not offered, such as band, chorus, or drama club, then the charter school articulates with the district to provide access for its students. When a school is new, it may take time to develop a rich variety of activities. Allowing opportunities for charter school students to participate in activities at another school of residence can serve as a short-term solution to meet students' interests. However, over time, the charter school will need to provide all of the offerings to meet student needs. For the most part, small learning communities in charter schools provide those sports and other extracurricular activities that are driven by student interest.

Magnet Schools

Magnet schools provide opportunities in a fashion similar to charter schools. Although the magnet school is a part of a district, students in the school may form their own sports programs and initiate their own clubs. Typically, a strong interscholastic sports program is offered at the magnet school.

Since magnet schools are designed around particular areas of academic focus such as science and technology or the performing arts, there are extracurricular programs that are naturally tied to these focus areas. For example, a science and technology magnet school might have a computer repair club and a video production club. A performing arts magnet might have a "hip-hop university." Students in magnet schools also typically participate in community programs and events that are related to the school's focus.

Since magnet schools are smaller than typical high schools, they may be at a disadvantage in participating competitively with larger schools. One solution to this is not to offer "big time" sports such as football and basketball and instead offer such sports as swimming, gymnastic, and golf, which require smaller teams and less cost.

Base High Schools

When students in a small learning community spend part of their educational day in a separate, free-standing building and the remainder in the base ("sending" home or district) school, they are encouraged to participate fully in the extracurricular and sports life of the base high school. In some instances, the small learning community clearly indicates that it is not a school in the common sense with respect to sports/ extracurricular opportunities. The school organization that houses the small learning community indicates clearly that it will never have a football team, a gym, or a mascot.

Comprehensive High Schools

Comprehensive high schools that are divided into small learning communities yet house all students in the same facility generally do not have sports programs or extracurricular activities devoted specifically to the students in the small learning communities. Rather, the philosophy is one of inclusion, which may also be dictated by limited staff and facilities. All populations of students pursue athletic and extracurricular interests together. This mirrors the real world.

Creating Small Learning Communities

Regardless of the organizational structure of the small learning community, a student government or association is a common extracurricular activity in most schools. The student government or association typically consists of elected representatives who deal with school issues concerning students' rights and interests. The individuals serving in these positions act as liaisons between the students and the faculty/administration and voice student opinion. Student government representatives also assume responsibility for many schoolwide social and community service events.

In some schools, a student council also exists. This differs somewhat from the student government in that students participate in school planning and visioning and provide input on any topic or concern about curriculum, staff, programs, or student body. The students also meet with administrative leadership and faculty representatives to discuss school operations, improvements, and activities. If a school is initiating a small learning community, the student council becomes a valuable means of involving students in the creation, planning, and implementation of the new organizational structure.

In the career academy structure and some magnet and charter schools depending upon their focus, youth leadership organizations are a natural connection. For example, in a small learning community with a technical focus, SkillsUSA (formerly Vocational Industrial Clubs of American (VICA)) would provide additional opportunities for students to apply their academic and career skills to real-word applications. Examples of other youth leadership organizations that complement career-based programs include: Health Occupational Students Organization (HOSA), Agricultural Education (FFA), Future Business Leaders of America (FBLA), and Distributive Education Clubs of America (DECA).

Activities Common to All Organizational Structures

Activities Linked to Curriculum

Many schools require community service for graduation. This program may be as co-curricular in nature as the youth leadership organizations. Students should be encouraged to complete their community service requirement in fields that relate to the academy or magnet school focus that they are pursuing. Community service programs that are matched with a student's academy or magnet program will enhance and deepen the student's school-based program.

In regard to music programs, small learning communities may not have sufficient resources or students to form a concert band or orchestra. However, despite this limitation, music can still be a part of the curriculum. Many small learning communities create smaller and specialized performing groups, such as a jazz band or steel drum band. Vocal groups such as *a cappella* singing groups can be excellent musical opportunities for small groups of students.

Social Events and Celebrations

Social Events

Again, the organizational structure of the small learning community greatly influences the type and number of social events. Wherever feasible, creating social events around the small learning community will help to define it as a school. When teachers and students interact frequently as a common group, it has the beneficial effect of enhancing the school community. Having social events helps to improve the development of the small learning community.

Where the small learning community is in a separate building, such as a charter school, social events are held specifically for students within the school. Small learning communities housed within a large comprehensive high school participate in the social events of the high school. Separate social events would be rarely scheduled for a particular group of students within a small learning community. Exceptions to this might be informal

gatherings, trips around the theme of the small learning community, and house or academy inspired special events.

Celebrations

All school communities enjoy celebrations. Celebrations are important in building a close relationship among students and staff. These celebrations can be especially meaningful to developing a sense of community in a small learning community. In large schools with small learning communities, celebrations typically are held for the small learning communities. Events such as graduation ceremonies are held for the school at large with all small communities participating. Students in the small learning community also participate in special events, such as an arts academy's opening night performance celebration.

The types of celebrations held for the small learning community may take the form of events to honor outstanding students, assemblies to give public recognition to high-performing students, and award ceremonies or dinners. Individual academies, houses, charter schools, and magnet schools may hold their own celebrations around specific areas of merit. This could include the opening of a student-run entrepreneurship. Business and community members and advisory councils may hold celebrations to honor students and programs.

Chapter 5

Learning from Others
Case Studies and Resources

The following case studies describe five schools that have successful used charateristics of small learning communities to redesign their school environment and improve student learning. Their efforts can serve as models for other schools.

Kennesaw Mountain High School

Type of School	Suburban Comprehensive High School
Location	Kennesaw, Georgia

Types of Small Learning Community

Magnet School
• Advanced Math, Science, and Technology Academy
Career Academy
• Academy of Finance

Background

Kennesaw Mountain High School is a growing suburban school. The high school opened in fall 2000 with 1,250 students in grades 9–11. The high school now has nearly 2,800 students in grades 9–12. In 2002–03, the student population of Kennesaw Mountain was about 81% white. Kennesaw Mountain is experiencing the challenge of rapid growth, and the small learning community is a means to continue the personalized learning environment of the school. Although the majority of Kennesaw Mountain's students are still part of the comprehensive high school program, two formal small learning communities consist of a magnet school in Advanced Math, Science, and Technology and the Academy of Finance. Many other informal small learning communities exist, including an arts program, band, student leadership, community service groups, and so forth, which provide the personalized approach characteristic of the small learning community.

Creating Small Learning Communities

Kennesaw Mountain continues to expand the division of the school into additional academies or houses to provide more personalized educational opportunities. The school has a strong commitment to make sure that no child is left behind or allowed to fall through the cracks.

Advanced Math, Science, and Technology Academy

Established in 2000, the Advanced Math, Science, and Technology Academy strives to provide advanced learning opportunities to students in Cobb County. As one of five Cobb County magnet schools, the Academy encourages students to soar beyond traditional curriculum and explore postsecondary level courses on the Kennesaw Mountain campus. Graduates of the Kennesaw Mountain Advanced Math, Science, and Technology Academy perform at the highest academic levels and matriculate at prestigious universities throughout the country. The Academy is affiliated with Magnet Schools of America (MSA) and the National Consortium for Specialized Secondary Schools in Math, Science and Technology (NCSSSMST). Beginning with 37 freshmen in 2000, the Academy currently has 262 students.

The four-year program culminates in a senior field experience with a local institution of higher learning, professional group, business, or scientific research project. This class, Advanced Scientific Internship, is paired with Advanced Scientific Research (both post-AP courses), in which students are actively involved in research that compliments their field experience and culminates with a multimedia presentation to a panel of community members. Academy students are actively involved in many extracurricular activities including athletics, fine arts, and school clubs in order to provide a well-rounded high school experience.

Academic Components

During freshmen and sophomore years, Academy students will complete core courses in mathematics, science, and technology. After completing core courses, students can choose a "major" concentration from one of the following areas of emphasis:

- **Biology** — includes Biochemistry, Genetics, AP Biology, Anatomy/ Physiology, and Microbiology
- **Mathematics** — includes AP Calculus AB and BC, AP Statistics, and Multivariable Calculus
- **Geosciences** — includes Earth Systems, AP Environmental Science, Geology, and Oceanography
- **Computer Technology** — includes Computer Science and Information Technology
- **Engineering —** includes Pre-Engineering, Engineering Applications, Robotics, and 3-D Solid Modeling

Students also choose between a "minor" in technology, which results in a dual seal diploma (Career Tech and College Prep), or in fine arts. This choice allows those passionate about music or art a chance to pursue that area while still being a part of the magnet school.

Admission Requirements

Students are accepted into the program only at the beginning of freshman year. Criteria for admission include: standardized admission test scores (PSAT), ITBS, or equivalent seventh grade test scores, middle school grades, teacher recommendations, communications skills, and middle school mathematics placement. Students applying to the Academy must complete Algebra I by the end of eighth grade.

Academy of Finance

The Academy of Finance is a school within a school educational model. It follows and is a member of the National Academy Foundation (NAF). The Academy of Finance is designed to provide a three-year program in finance for sophomores, juniors, and seniors at Kennesaw Mountain. It involves businesses, schools, parents, and students working together for the ultimate benefit of young adults, the financial services industry, and the community. Students take courses that are articulated with

Chattahoochee Tech and North Metro Tech, and the students have the opportunity to earn three postsecondary certificates and a dual seal from Cobb County Schools.

Academic Components

The Academy of Finance program supplements the existing college prep curriculum and consists of seven courses that are finance or finance-related, plus a college-level course. Students participate in a seven-week paid summer internship at a MACO Federal Credit Union between the student's junior and senior years and then run the branch at Kennesaw Mountain High School under MACO's guidance. Participation in the Academy of Finance prepares students for productive employment by stressing communication skills, analytic thinking, and workplace basics such as dress, punctuality, and responsibility.

The NAF Academy model consists of three critical components:

- **A career-themed small learning community** comprises the resources, leadership, and supports needed to sustain the Academy and features NAF's curriculum — designed, reviewed, and updated regularly by a team of educators and industry experts.

- **Community partnerships** include the collaboration between the school and the larger community toward the development of local advisory boards and paid student internships — a critical factor in connecting the "real world" to classroom study.

- **Professional development** ensures that all stakeholders have regular opportunities to enhance their Academy-related skills and competencies through NAF conferences, technical assistance materials, and other local activities.

The Academy program also features:

- Six- to eight-week paid internships at local small businesses, government agencies, and corporations
- An introduction to all facets of the industry (finance, travel and tourism, or information technology) and exposure to current technology through such activities as job shadowing, mentoring, and field trips
- Strong encouragement to take two years of mathematics, computer applications, and foreign language — disciplines readily applicable to careers in the industry
- A way for students to earn college credits while in high school and the opportunity to attend conferences, trade shows, and college fairs
- Enhanced opportunities for employment after graduation.

Accomplishments

Kennesaw Mountain uses standardized test scores as an indicator of opportunities to improve student achievement. Juniors score well above the state and national norms on the PSAT. The school's results on the Georgia High School graduation test continue to improve in English and mathematics. Additionally, Kennesaw Mountain students excel on AP exams. Of the 70 students who took the AP tests in 2002, 75.5% scored a 3 or higher. This is well above district and state performances.

Students see the connection between what they learn in school and the larger world. They learn skills and self-confidence, but they also learn about opportunities. In short, they experience an easier transition to adult life. Although the Academy operates within the high school, higher education also plays a role. In addition to helping with curriculum development, local colleges may offer college courses to Academy seniors and college planning services and articulation agreements to program graduates.

Creating Small Learning Communities

Sue Gunderman, the principal, has been a principal of a performing arts magnet. She knew the value of these kinds of programs. Prior to the school's opening in 2000, school planners understood that, while small at inception, Kennesaw Mountain High School would grow to capacity and beyond quickly. Therefore, the small learning community became one of the ways to "chunk" the population. Small learning communities have been very successful, and Kennesaw Mountain is looking at establishing other small learning communities in the school. As one staff member states, "The best part of these programs is the feeling of community that is engendered. Magnet students, especially, considered "geeks" and "nerds" in isolation at other schools, have found a family here that values each other's interests and peculiarities."

Small Learning Community Practices

Staffing and Students

The Magnet School has one full-time coordinator, one counselor that is shared with the Academy of Finance, and one secretary. The county also provides four magnet teacher positions in addition to the regular allotment. Staff is chosen for specific areas of expertise so that program needs are met. For example, this year Magnet Earth Systems, Biochemistry, Advanced DNA/Genetics, and Astrophysics were added, and consideration was given to those fields in hiring. AP-trained teachers are valued, although it is not a requirement for employment. It matters more is what you know than the degree you have earned. Regular magnet teacher meetings are held to discuss issues specific to the program, but all magnet teachers also teach in the mainstream school. Therefore, they are part of the larger faculty first and foremost, just like the relationship of the magnet students to the larger Kennesaw Mountain High School population.

The Academy of Finance is directed by one of the school's assistant principals (this is but one of his duties), and he has built the staff with

teachers who have been specially trained during the summer and in continuity programs during the school year. They, too, have mini faculty meetings. This program is in its infancy and will continue to grow as more students are involved.

Teaching and Learning

The Magnet Program is designed to take students where they are academically and provide them with accelerated learning opportunities that extend beyond what is found in traditional classrooms. A number of post-AP courses, such as Multivariable Calculus and Astrophysics, are offered. Another strength of the program is the individualized attention given to students, especially in the area of scheduling. Magnet students are allowed to "double" in mathematics and science. (That is, they take one course each semester. A block schedule usually does not allow for that.) Therefore, freshmen take Biology and Chemistry and Geometry and Algebra II; thus, they can move beyond the norm. Rigorous assessments are designed to prepare students for the next course. Teachers implement many different evaluative measures, all aimed at the "D" quadrant on the International Center for Leadership in Education's Rigor/Relevance Framework.

Campuswide

A Magnet Advisory Council is dedicated to this particular group of students, but other groups of students have advisory councils, too. Special equipment, specifically technology, is available to all students at Kennesaw Mountain. There are no specific rooms or labs dedicated to magnet students. The philosophy of Kennesaw Mountain is one of inclusion.

Type of School	Charter School
Location	Victorville, California

Types of Small Learning Communities

Career Academy
- Arts Academy
- Business Academy
- Science Academy
- Social Science Academy
- Technical Academy

7th and 8th Grade Prep Academy

Background

Excelsior Education Center (EEC) is located in Victorville, California, in the high desert area known as the Victory Valley of San Bernardino County. It is 97 miles northeast of Los Angeles and 35 miles northeast of San Bernardino, at the edge of the Mojave Desert. Excelsior opened as a school of choice in 1995-96. In fall 2003, Excelsior enrolled 852 students and had 98 staff members. The student population reflects the diversity of the school's surrounding community: 39% Caucasian, 17% Hispanic, 5% African-American, and 39% other. Of the 852 students enrolled, 289 students receive free or reduced-price lunch.

The uniqueness of Excelsior is its personalized approach to learning. The school offers a program of home study complemented by exceptional supports provided by Excelsior. An individual education team of a student, parents, and a staff member builds a partnership that develops a custom-designed curriculum that meets the unique needs of the student through a Personalized Learning Plan (PLP). This plan encourages students to choose options that best complement their academic and careers goals.

Students have multiple options to pursue learning. Since "attendance is optional, and learning is mandatory," students may opt to complete all high school requirements through a program of home study. Students may also elect to participate in on-campus workshops, labs, and online courses. Dual credit and/or college credit may be earned through a partnership with Victor Valley Community College. Under a PLP, students may choose any combination of these options and advance at their own pace, which results in many students completing requirements in less time than it takes in a traditional high school.

In addition to these multi-faceted delivery options for learning, students meet rigorous academic requirements within the context of relevant, career-oriented learning through required participation in small learning communities or academies. These academies provide students with opportunities to be introduced to career possibilities, achieve state standards through an integrated approach within the career program of study, master a specialty area within the career academy, participate in work-based internship programs, and engage in on-campus, student-run business enterprises.

The implementation of career-based academies is Excelsior Education Center's response to the new realities of today's educational environment. As businesses in the United States evolve to compete successfully in the global marketplace, there is a growing need for employees with business expertise and the ability to analyze and respond to emerging trends. The academies are designed to prepare students to meet this challenge, think, make decisions, interact effectively with others, use creativity to solve problems, and communicate using technology. The career academies have been validated by business and industry; they are broad-based and encourage continuing academic and technical education beyond high school.

Eventually, each academy will have its own campus and function as an independent entity, providing services to the others academies and hopefully carry on business in the high desert area. It is the intent of the

school leadership that the academies will remain small enough so that no student will slip by unnoticed. Every student will work with a specialized educational team while in the academy.

Career Academies

All students are required to participate in a career academy; thus, there are no entrance requirements. Facilitators (teachers) are also required to be a member of a career academy. Initially, staff members were given an opportunity to express their interest in an academy. For the most part, requests were honored, and assignments were made based on the staff member's desire. Staff is geographically situated within the academy and meets with other staff members from the academy. Students follow a Personalized Learning Plan; thus, direct teaching by teachers or teams of teachers within an academy to students enrolled in that academy does not necessarily occur. However, the student's facilitator on the PLP team is a member of the academy in which the student enrolls.

Within the academy, students have the option of working within a more focused specialty. Students participate in internships in local businesses related to their career choice. Academic requirements are incorporated into the specialty. Students also participate in a school-based enterprise that is a student-run business on the school campus. Excelsior brings the business application model to the student and provides internships in the field as an adjunct to the enterprise. Specialty students spend a minimum of 50% of their time on campus taking courses and working in the enterprise.

Each career academy is located in a specific area of the campus. The outside of the building in which the academy is housed has been decorated and painted by students to display the identity of the career focus.

The Arts Academy

The Arts Academy is a meeting place for the creative — whether it is creativity in dance, music, art, drama, design, writing, photography, or video production. The journalism specialty features a student-produced school newspaper, *The Talon*, as well as *Excelsior Kids*, a community magazine. Students also team with members of the digital design and video production programs to shoot and edit their news, features, and documentary programs.

Students may pursue drama, from classic Shakespeare to contemporary dinner theater presentations. Others may develop their two-dimensional skills with pen, pencil, charcoal, watercolor, or acrylic. Three-dimensional art is created by students interested in sculpture.

The specialties offered by the Arts Academy are print journalism, digital design, and video production.

The Business Academy

The Business Academy was created to provide a foundation for success in an information-based and service-based global economy. The mission of the Business Academy is to contribute to the preparation of a world-class workforce through the advancement of leadership, citizenship, academic, and technological skills for Excelsior students. The Business Academy is sponsored by an educational partnership among Excelsior Education Center, Victor Valley Community College, and the High Desert Business Community.

The Business Academy offers specialties in banking and finance, travel and tourism, and insurance and investment. Implementation plans are in process to offer future specialties in international business, entrepreneurship, and sales and marketing.

The student-run, on-campus businesses within each of the current specialties include:

Eagle Trust — Students learn fundamental knowledge of banking practices to equip them for careers in the rapidly growing financial services industry.

Eagle Travel — Students take part in the daily operation of a travel agency and learn the various facets of the travel and tourism industry.

The Eagle Risk Exchange (TEREx) — Students learn what they need to know to be a success in the pursuit of a career in the insurance arena.

The Science Academy

The Science Academy gives students the opportunity to explore occupations in engineering, applied technology, medicine, medical technologies, and science. Students in the Science Academy often possess outstanding ability in mathematics and science. Specialty areas include information technology, marine biology, allied health, and animal science.

Under the Science Academy is the student-run business Eagle Computer Services (ECS). ECS provides computer maintenance, upgrades, computer cleaning, and simple diagnostics. Students also build new computer systems and create Web site and graphic design. Students may also work for their M.O.S. (Microsoft Office Specialist) or A+ certifications.

The Social Science Academy

The Social Science Academy draws students who are interested in helping others. From childcare to social worker to various public service occupations, students increase their appreciation for the value of all human beings. The Social Science Academy is committed to the needs of all groups of people. Students develop their capacity for more personally rewarding and socially responsible participation and leadership in their families, work, communities, and society as a whole.

In the Social Science Academy, students gain a better understanding of human behavior, may participate in an internship/fieldwork experience, and participate in supervision and consultation with professionals in the community.

The Technical Academy

Through the Technical Academy, students may directly enter the workforce upon graduation. Positions that students qualify for include entry-level carpenters, plumbers, electricians, or masons. The Technical Academy prepares students to go directly to college and for immediate job placement. The integrated curriculum allows many students to complete the bulk of their core academic work while they are in the occupational and specialty-based classes.

Specialties offered through the Technical Academy are construction that focuses on carpentry, plumbing, electrical, and custodial services. A campus-based, student-run business provides students with an opportunity to construct storage sheds and backyard playhouses, which are sold through the business enterprise.

7th and 8th Grade Prep Academy

The 7th and 8th Grade Prep Academy is designed to prepare and introduce students to the "Excelsior Way" of learning by doing. The Prep Academy helps 7th and 8th grade students establish a strong foundation in school procedures, academic choices, and schoolwide learning expectations. Students receive a standards-based academic program and enrichment activities including workshops, life skills and physical education, clubs, and field trips and activities.

Teachers are assigned to work specifically with 7th and 8th grade students. The Prep Academy is located in its own building on a campus separate from the career academies' campus.

Creating Small Learning Communities

Accomplishments

Excelsior Education Center has accomplished a great deal in a short period of time in its implementation of career academies. During the 2002-03 school year, Excelsior aligned the entire Career Academy curriculum with the California Academic Content Standards in English, Science, and Social Studies. To ensure relevance with rigor, the academic curriculum was grounded in the career specialties.

Excelsior has had success in meeting or exceeding the state mandated Academic Performance Index (API) each year since the API's inception. All disaggregated subgroups far exceeded the growth goals for 2002-03. In 2002, Excelsior's English Language Arts passing rate on the California High School Exit Exam (CAHSEE) was higher than the state rate (58% vs. 54%).

The increasing interest and support of local businesses validate the need for students to have an opportunity to complete requirements within a career focus. The combination of small learning communities and the Personalized Learning Plan under the direction of the individual education team make learning truly individualized at Excelsior. Each student has an opportunity to have a program of study that is tailored specifically to the individual student's needs, strengths, and areas of interest.

Small Learning Community Practices

Staffing and Students

Each academy has a chair. The chair oversees the curriculum, resources, and staff of the academy. An academy coordinator is responsible for the overall functioning of all the academies. The academy chairs work directly with the academy coordinator in instructional design. An individual from the central administrative team supervises staff. Business partnerships

related to the academies are strong and particularly present in the student-run, on-campus businesses. Business representatives assist in curriculum design, provide technical advice, and give students internships and other related work experience opportunities. Businesses have also provided financial resources for the growth of the academies.

Students select an academy of their choice and stay within this academy as a career focus for their instruction. Even if students take an entire four-year program of home study, they, along with all other students, are required to complete a Career Passport as a graduation requirement. This, too, ties the students into the career focus of their instructional program and preparation.

Teaching and Learning

Small learning communities under the career academy model bring relevance and preparation for tomorrow's workplace to the curriculum; much of the instruction falls in Quadrant D on the International Center for Leadership in Education's Rigor/Relevance Framework. Students focus on the academic path that best suits their interests, talents, and career goals while achieving the required state standards within the context of their chosen academy. Relevance mixes with rigor when students studying carpentry learn mathematics skills used by carpenters, and students studying banking and finance receive history credits by learning about the history of banking.

The multiple pathways available to students (home study, workshops on campus, online courses, and college credit courses) and the Personalized Learning Plan for each student give students opportunities to learn with one or more facilitators (teachers). The facilitator, however, that is part of the student's individual education team is the "constant" teacher for the student. This teacher is a member of the career academy that the student has selected. Learning is individualized through the individual education team approach with the students PLP, as well as through the small learning communities.

Campuswide

Specialty courses within the academies are taught by teachers assigned to the academy specialty. These instructors are located in the career academy building in which their specialty is found. Some workshops in core academic areas that are offered on campus are taught by facilitators from the various academies, and students from across the five career academies may attend these.

Extracurricular and cocurricular activities are open to students from all the academies. This is also true of student governing organizations such as student council and Associated Student Body. The community service graduation requirement is typically but not necessarily related to the student's career academy choice.

Future Directions

Excelsior Education Center is dedicated to creating academic programs by partnering with private industry and the public sector in order to deliver quality, industry-specific education and work experience. By integrating necessary workplace skills in the classroom, students come to understand the connection between academic learning and career success.

Excelsior is committed to the further development of the career academy model. Land was recently obtained so that Excelsior can expand its campus. Eventually, it is hoped that each academy will have its own campus. Excelsior will continue to explore possibilities for new and relevant specialties as the realities facing the workforce evolve and new skill requirements emerge. The career academy program will continue to expand student-run enterprises on campus and persist in its demand for standards-based interdisciplinary education that is applicable to the requirements of the marketplace.

Kenwood Academy High School

Type of School	Urban High School
Location	Chicago, Illinois

Types of Small Learning Communities

- University of Chicago Accelerated Magnet Program
- Freshman Academy
- Scholars Mathematics Program
- Architecture Scholars Program
- World Language Program
- Student-Centered Opportunities for Personalized Education (SCOPE)

Background

Kenwood Academy High School is located on the south side of Chicago in the Hyde Park-Kenwood neighborhood, one of Chicago's most socially, racially, and economically diverse communities. Its unique character is enhanced by partnerships with its largest neighbor, the University of Chicago, and many active community groups influencing the development of this area.

Kenwood Academy's total enrollment is 1,700 students, consisting of 90% African-American, 4% Caucasian, almost 3% Hispanic, and 2.5% Asian/Pacific Islander. About 12% of the students have disabilities. Ninety percent of the students live in the attendance area, and 55% of the students are from low-income families. Despite the poverty level of many students, they succeed. More than 80% of the Class of 2003 continued on to a four-year college, and 5% of the Class of 2003 enrolled in a two-year college.

Creating Small Learning Communities

Student success is attributable to the personalized, caring environment in which all students are encouraged to believe in their potential, capabilities, and opportunities to achieve in school and after graduation. This is made possible through the school's organizational structure of small learning communities. Every student belongs to a small learning community. This ensures that "no student is left behind." As one teacher stated, "The cracks are so small here that students do not seem to fall between them and fail." The school's vision for its small learning communities is "Student-Centered Opportunities for Personalized Education That Yields Success for Every Freshman Student."

University of Chicago Accelerated Magnet Program

The Accelerated Magnet Program in partnership with the University of Chicago was established to provide top students in grades 9–12 with greater opportunities for more advanced academic work. The students' goal in the program is to enroll in at least one university class by their senior year. The Accelerated Magnet Program reflects the high expectations that characterize the entire school community. The Accelerated Magnet Program is open to all who apply. However, the lottery system allows only for a certain number of students to be accepted. Thus, admission to the University of Chicago Accelerated Magnet Program is based upon student test scores in freshman year and a student's transcript and recommendations in subsequent years. This is a competitive program and requires hard work and self-discipline. Accelerated Magnet Program students are held to the highest level of expectation for attendance, behavior, and academic performance.

A two-week study skills seminar is required the summer before freshman year. To remain in the Accelerated Magnet Program, students must be enrolled in at least one Honors level class and maintain satisfactory grades in that class. To enroll in a University of Chicago class in mathematics or science, eight-week summer courses are required (one summer for science, two summers for mathematics). University of Chicago professors often team with high school teachers to team teach courses.

Kenwood Academy's goal is to steadily increase the number of students who graduate with a high school diploma and several University of Chicago courses on their transcript. Kenwood Academy believes that with this type of profile, graduates emerge with an experience that helps them to gain admission to top colleges and universities around the world.

Freshman Academy

The Freshman Academy is the primary small learning community for entering ninth grade students. It is a means of ensuring academic and social progress for all students as measured by increased attendance, participation in extracurricular activities, and a decrease in failure. The Freshman Academy helps personalize the transition from elementary to high school. Freshmen are grouped in small clusters with a trained facilitator who monitors academic performance in core subject areas and social progress. Students meet three days per week with a teacher advisor and have time for talk, reflection, and tutorial programs. Every freshman has a student mentor, and the guidance counselors train upper class students to conduct orientation and inculcate the drive for academic achievement in the ninth graders.

Scholars Mathematics Program

Students demonstrating high achievement in reading and mathematics on the most recent standardized test are eligible to apply to the Scholars Mathematics Program. Students selected for the Scholars Mathematics Program are taught by a cadre of teachers working together in the core areas. During the first year, students take Algebra I Honors, English I Honors, World Studies, Biology I Honors, Integrated Math, and Physical Education I. During the summer following freshman year, students take Honors Geometry. In sophomore year, students take Algebra-Trigonometry Honors, a foreign language, and other core subjects. The intent is to enable students to succeed in Calculus in senior year.

Architecture Scholars Program

The Architecture Scholars Program provides students in grades 9–12 with an honors curriculum with an education-to-career component. The Architecture Scholars Program features a four-year sequence of interdisciplinary courses in the areas of art, social studies, and science, with a focus on architecture. Appropriate skill-level mathematics classes are also included. Students are grouped together in the same classes and have the same core area teachers for their courses. Teacher teams center on English, history, and architecture. Ninth and tenth grade students are grouped together in science, mathematics, social studies, art, and architecture.

Third-year students continue the architecture sequence as approved by the Chicago Public Schools' Education to Careers Office. Students participate in lectures at the Illinois Institute of Technology (IIT) and have staff members from IIT augment their work at Kenwood Academy. During the summers, students participate in classes at IIT and/or serve internships with architectural firms or drafting firms in the area. The intent of this program is to encourage students to consider careers in architecture and to offer students an opportunity to attend IIT.

World Language Program

The World Language Program provides students with the opportunity to study language over a four-year period. Students may elect to study four years of German, Italian, Latin, Japanese, Greek, French, or Spanish. Studies are taught by the same group of teachers who work together in the core areas of English, mathematics, social studies, and science. Students in the World Language Program receive extra language laboratory time and have additional tutors and teacher-generated support available. The companion world cultures class is designed to place extra emphasis on the cultures of the countries whose languages are studied. All students of the same language have the same language teacher and are grouped

together in an advisory program. A second emphasis of the World Language Program is career education in business or technology.

Student-Centered Opportunities for Personalized Education (SCOPE)

The Student-Centered Opportunities for Personalized Education program is designed for entering freshmen who need the most assistance based on their test scores; these students enter Kenwood Academy without a program designation. In SCOPE, students work closely with a faculty advisor to identify their individual strengths and interests and to develop a four-year plan of studies. A set of teachers works closely with students in this program to monitor progress during both freshman and sophomore years. Students are given the opportunity to cluster several electives in performing and fine arts, technology, world language, and Advanced Placement classes. Students in the SCOPE program matriculate into one of the cluster programs such as world language, Advanced Placement classes, or College Bridge. College Bridge is a cooperative venture between the Chicago Public Schools and four-year postsecondary institutions in the area.

Accomplishments

Kenwood Academy received a Small Learning Community Planning and Implementation Grant that has strengthened the small learning communities programs. The vision for these programs is "personalized education that yields success for every freshman student." The small learning communities personalize the high school experience for incoming freshmen by programming to assist students in succeeding academically and emotionally.

The culture of Kenwood Academy is one of high expectations with strong, planned supportive relationships among students, teachers, administrators, and counselors. This contributes to a unique environment in which everyone

cares about everyone else and desires all to do well. This is made possible through the individualization and personalization of the learning experience through small learning communities and the school's dedication to live its vision statement — "Kenwood Academy is a community of students, parents, teachers, and community members committed to creating a positive learning environment in which all students can achieve their fullest potential as intelligent, creative, and socially responsible global citizens with a lifelong passion for learning."

Small Learning Community Practices

Staffing and Students

As described previously, students are kept together as much as possible in their small learning community. This is particular true in the specialty or focus area of the small learning community, for example, architecture-related courses, language courses, and mathematics courses. Entire groups of students are together for almost their entire program of studies in the University of Chicago Accelerated Magnet Program.

Teachers team in core academic areas, or as in the case of the SCOPE program, teachers team around a particular student and his or her needs, strengths, and interests. All the small learning communities fall under the supervision of the building principal and the central administrative team. Department heads assume leadership roles in the curricular focus of some of the small learning communities; guidance counselors lend direction to SCOPE.

Business partnerships and college and university collaborations assist lead staff in each related small learning community. These individuals provide student work experience opportunities where appropriate, opportunities to take coursework at the college or university level, technical advice on curricular components, shared teaching responsibilities, and instructional enrichment programs.

Teaching and Learning

A great deal of the coursework is directly related or unique to the small learning community. Thus, instruction is separate. In some instances, core academic instruction may consist of a blend of students from more than one small learning community, but for the most part, the Kenwood Academy attempts to have teams of core teachers work with students within a small learning community in the core academic areas. Courses such as music, art, and physical education are shared across the entire high school.

Campuswide Activities

Kenwood Academy's identity is tied to the high school as a whole. Kenwood Academy has a comprehensive interscholastic sports program; an excellent vocal music program with a rich history of quality performance in the community, state, and beyond; and a vibrant, dynamic extracurricular and co-curricular activities program. These programs are all open to students from the entire school, across all small learning communities.

Kenwood Academy has a rich history of high performance, high expectations, and strong, positive relationships. The small learning community structure enables Kenwood Academy to provide supportive relationships with students while instructing in a contextual sense. Within the small learning communities, academic offerings are designed to appeal to students' interests and needs, and instruction ensures application of learning to real-life situations.

Creating Small Learning Communities

Type of School   Urban Specialized High School

Location: George Washington Education Campus
                          New York, New York

Type of Small Learning Community

Career Academy

Background

George Washington Education Campus is really four separate high schools in a large historic school building. George Washington High School is an old high school in the Washington Heights area of Manhattan with many famous graduates, but by the 1980s, it was perennially on the state low-performing school list. A large high school of approximately 2,500 students, it had very low attendance and poor academic achievement.

In a drastic redesign effort five years ago, George Washington was divided into four separate high schools, each having between 600 and 700 students. Initially, George Washington was closed and opened the first year with just 200 students in each of the four high schools. New principals and teachers were selected, some of whom were from the previous high school. With a fresh population of students who had never been in the high school and new staff and new leadership, the four schools attempted to recreate an improved student culture of high expectations.

Over successive years, the high schools added new students to become four-year high school programs. Each high school took on a separate career focus as a way to differentiate itself and provide a focus of collaborative curriculum work. The four high schools gradually grew to the current enrollment levels.

The High School for International Business and Finance is one of four successors to the long-troubled George Washington High School. (The other high schools on the campus are the High School for Health Careers and Sciences, High School for Law and Public Service, and High School for Media and Communications.) Each high school operates with it own set of administrators and teachers. They operate in one area of the school, usually one floor. This smaller structure has led to a much improved school, and George Washington is now off the state list of low-performing schools. The smaller high school gives staff members the opportunity to know all students in the school and provide closer supervision. Each high school now is gradually developing its own culture and reputation.

At the High School for International Business and Finance, the student population is 100% eligible for free and reduced lunch and is 93% Hispanic. The vast majority of students are from families that do not speak English. The enrollment is approximately 640 students in grades 9–12.

Academic Components

The High School for International Business and Finance has a number of program affiliations to support its business-related career theme. The High School for International Business and Finance participates in the National Academy Foundation program, Academy of Finance. The staff development and requirements for student internships have added to the quality of instruction. The High School for International Business and Finance also has the Virtual Enterprise business education program and Microsoft® Office User Specialist (MOUS) certification programs that are very popular with students. They are also working with the National Foundation for Teaching Entrepreneurship and International Trade Fair student exchanges.

Students complete the core academic courses required by all students in New York State for a diploma, including the five Regents examinations that must be passed to earn a diploma.

Creating Small Learning Communities

The high school master schedule is a traditional 45-minute class in a nine-period day. The curriculum includes a number of dual enrollment courses where students receive college credit and Advanced Placement courses.

Admissions Requirement

The High School for International Business and Finance is considered an option school in the New York City school system, so students can apply to enroll in this school. In this sophisticated system, students may apply to any of over 100 high schools. Some students are assigned competitively to schools of their choice, and others are selected randomly. The High School for International Business and Finance has some students through the choice option, but also enrolls a number of students as a neighborhood school for students that do not receive their choice. The High School for International Business and Finance was the choice of approximately 50% of the current enrollment. There are no other specialized requirements for admission to the school.

Accomplishments

The most passionate observation of accomplishments comes from teachers who worked in the old George Washington High School and now work in the new High School for International Business and Finance. These staff members consistently marvel at the dramatic changes in the high school. The students and the community have not changed, but the high schools have been able to create a significantly better learning climate and resulting student achievement.

The students here care about their high school and are articulate and self-assured. That is one measure of how the High School for International Business and Finance's effort has paid off. Another is academic achievement. Last year's graduating class beat the New York City's Regents

English Examination pass rate by about 5% and the mathematics examination pass rate by fully 11%. It is not surprising, that the high school received 900 applications for the 120 or so places in its 2003-04 freshman class or that the school has test scores high enough to be exempted from the chancellor's new standardized curriculum. The High School for International Business and Finance is increasing in popularity and respect for its excellent education program.

The High School for International Business and Finance has used its business and finance theme to gather support from some of the members of New York's corporate community. A strong partnership with J.P. Morgan Chase provides students with mentors and career and college advice. Along with Citicorp and other companies, J.P. Morgan Chase also has offered summer internships to students. Because the students are trained to use Excel, Power Point, and other major pieces of business software, employers have been consistently surprised with their technology skills, and students have been able to tackle more sophisticated tasks than anticipated. Students may also join the high school's "Mouse Squad," which maintains a computer lab and assists the technology coordinator in running computers throughout the George Washington Education Campus. Nearly 100 students are now participating in internships.

The High School for International Business and Finance has successfully completed the New York State registration program in Career and Technical Education. The high school was recently recognized as one of the top 200 schools in New York City.

Small Learning Community Practices

The High School for International Business and Finance has focused on a strict student discipline code and teachers getting to know all students in the school. There is a strict dress code that aligns with preparing for the business field. This contributes to positive student conduct.

Creating Small Learning Communities

Professional development has been a key strategy to improve instruction and achievement. This professional development takes many forms including formal workshops, book study groups with the principal, department meetings, and grade level meetings. The topics included are balanced literacy, developing lessons plans aligned with standards, student dropout prevention, student assessment, differentiating instruction, and analyzing student test data. The staff members have become intensely data driven and are constantly working with student achievement data. There is an early release of students one day per week that provides 45 minutes for professional development and common preparation time for grade level teams.

The curriculum is constantly adapting to increase its focus on a context of international business and finance. The many programs that have been added accomplish a great deal toward this contextual instruction. While meeting the New York State testing requirements in core academic subjects, the staff members are seeking ways to add greater context and relevance to their instruction. They seek to increase student interest and motivation that comes from this real-world instruction.

One of the challenges of operating a small high school in a large high school building is coordination of facilities and some courses that are commonly used by the three other high schools. There is a campus manager that the four high school principals meet with weekly to coordinate these shared high school programs and facilities. In addition, the four high school principals divide some of the overall functions such as security and extracurricular activities.

Extracurricular activities and sports are open to students in all four high schools. There are a few clubs that are unique to one of the high schools. Students from the four high schools mingle in these after-school activities.

**Proctor
High School**

Type of School   Urban High School

Location   Utica, New York

Type of Small Learning Community

Career Academy
- Liberal Arts and Human Service
- Physical Science and Technology
- Life, Health, and Environmental Sciences
- Business and Finance

Background

Utica is a small city in upstate New York. The K–12 school enrollment is 9,200 students; 70% from families that receive free/reduced lunch. The special education population is 15%, and the English language learners population is 13%. The racial mix is 56% white, 26% black, and 12% Hispanic. Thomas R. Proctor High School is the single comprehensive high school in the Utica City School District.

As a community, Utica has experienced the economic and demographic shifts of many small cities in the Northeast. Over the last several decades, manufacturing employment declined, and population shifted to suburban areas. This trend has been followed by population growth in the city that is poorer economically and includes large numbers of immigrants. The Utica City School District has struggled with cycles of population decline and growth along with a declining tax base. In the mid-1980s, there were three high schools in the school district. In 1987, these three high schools were combined into one high school. By 1998, the school population had grown, and the high school was overcrowded. Several alternatives were considered including creating a second high school, creating magnet schools at several satellite locations, operating a 9th grade school, or expanding the Proctor High School facility.

Creating Small Learning Communities

The Utica City School District leadership decided to keep the single high school and to renovate and expand the facility to house the projected 2,400 students. There were many advantages to the students and community to retain a single high school in the city. Thus, high school leadership decided to create a learning environment that was smaller and more personalized in the large, renovated Proctor High School. The ultimate decision was that Proctor High School would be divided into four career academies.

The renovation of Proctor High School would be designed to accommodate the needs and structures of these four career academies. This project began in 2000 with the development of the design of the building renovation. Most small learning community projects have been magnet schools or new schools. Proctor High School undertook this significant change with all of its existing teaching staff and including all of its high school population.

Recognizing the challenge of creating this unique high school structure, Proctor High School leadership developed several partnerships. A partnership was formed with the local community college. The project, named the Millennium Project, focused on designing a new community school for the 21st century that provided a seamless transition and prepared students for postsecondary education. This college partnership provided expertise to assist with the innovation and also conveyed to the public that this change was about higher expectations. The career themes selected by Proctor High School match the career majors in Mohawk Valley Community College.

The Utica City School District also joined with the Center for Collaborative Education and the New England Small Schools Network (NESSN) to assist in the design of the curriculum and develop staff in preparation for the four career academies. The 10 design principles of NESSN are:

1. Habits of Mind
2. Personalization
3. Less Is More
4. Equity and Access

5. Lower Student-Teacher Ratios
6. Student-as-Worker, Teacher-as-Coach
7. Assessment by Exhibition
8. High Expectations, Trust, Respect, and Decency for All
9. Professional Collaborative Communities
10. Flexibility, Autonomy, and Shared Governance

Teaching staff members were given a chance to express interests in a particular career academy, and most of these interests could be honored as all existing staff members were assigned to one of the four career academies. Staff members engaged in curriculum development and professional development, and the facility renovation has been completed.

Small Learning Community Structures

Academic Components

Each career academy includes the core academic requirements to meet the state standards. All students will complete 18½ credits and pass the five required New York State Regents Examinations. The curriculum in each career academy is preparation for these requirements, as well as entrance into college. Within each career academy, the core academic courses instruction is enhanced to include application related to the career theme of the academy. In addition, students will take electives related to the career academy theme.

An important effort in curriculum planning was to build equal levels of academic rigor into each of the career academies. Regardless of the career academy that a student is in, they will be prepared to enter college or work. No one career academy is designed to be more challenging or a higher level track.

Admission Requirement

The career academy structure at Proctor High School is open to everyone since this is the only high school. As part of the career and school planning in 8th grade, students are introduced to high school requirements and the structure of the four career academies.

Accomplishments

Proctor High School and the Utica City School District are in the middle stage of the implementation. It is still early to determine the success in student retention and student learning. However, there are many accomplishments to date. The new school addition has been completed. Staff members and current students in 10th and 11th grades are operating in the four career academies. Next year will be the first year with all students enrolled in one of the four career academies. It will also be the first time that the 9th grade students will be added to Proctor High School, and the high school will be at its full enrollment.

Proctor High School has met the challenge of balancing the four career academy enrollments and still giving each student choices. The current enrollment is balanced, and 75% of students were given their first choice of career academy. Each student develops a high school plan of a career goal and courses to be taken. Even by setting this career goal, it does not limit students to a "vocational" preparation limited to a job after high school. The selection of a career only gives a beginning focus to high school preparation. The strong core academic content of each career academy still keeps all students' options open to moving into any career through postsecondary education. This career plan does not limit options; it only provides a context for a strong high school preparation.

As the four career academies evolve, they will increase the autonomy of each career academy, with each career academy becoming individually responsible for budgeting and hiring of staff.

The data that will be used to evaluate the success of the design includes student and parent satisfaction, number of discipline problems, attendance rate and dropouts, graduation rates, postsecondary transition, and student achievement.

Small Learning Community Practices

Staffing and Students

Each career academy has a principal. An executive principal is responsible for the overall supervision of the school facility, and that person is the former principal. Plans are in place to hire a career specialist to be assigned to each career academy. Business partnerships with employers related to the career academy will be developed and serve as a source of student internships and technical advice.

There is a leadership team of teachers in each career academy that is responsible for working with the principal in instructional leadership.

Teaching and Learning

The four career academies at Proctor High School are a blend of individual schools and shared instruction. Some courses (the arts and physical education) are shared across the larger school campus, while most courses are separate for only the students in a particular career academy.

Many of the electives related to the career academy theme are directly related to programs at Mohawk Valley Community College. This enables students to earn dual credit for many of these courses and enter the college with advanced standing. Career academy students are not limited to the community college preparation and are still prepared to go to any college of their choice.

The change to instruction for career academy teachers is to continue to follow state standards for their curriculum but to relate essential questions of the course to applications in the real world in the context of their career academy.

Campuswide

The core academic courses (English, social studies, mathematics, and science) will be taught by teachers assigned to each career academy. These instructors are located in the wing of the school assigned to the career academy. Extracurricular clubs such as JROTC, Yearbook, and service organizations will be open to students across all four career academies. Interscholastic sports will be common across the entire high school. Proctor High School will still compete as a large school in sports. There is strong community interest in maintaining strong music and sports programs, and the high school leadership feels this can be maintained and still provide for small personalized schools in the four career academies.

International Center for Leadership in Education Resources

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The International Center for Leadership in Education has produced a number of resources for planning, teaching, and learning that are the result of experience in working with schools across the country. This section describes how several of these publications can be used in developing and enhancing small learning communities.

These resources will help to accomplish the following tasks:

- Link Curriculum to Standards
- Integrate Academic Skills
- Develop Rigorous and Relevance Instruction
- Teach for Rigor and Relevance

Link Curriculum to Standards

Schools today face conflicting challenges. The most immediate and well-publicized challenge is for students to meet state testing requirements under *No Child Left Behind* (NCLB). At the same time, schools are being pressured to prepare students more effectively for the world in which they will live and work.

As small learning communities are created, leaders and teachers will want to ensure that their students receive a rigorous and relevant education.

The small learning community must begin with a vision of a quality education that is shared by all. This vision then serves as the guiding force for teachers to work together on instruction that addresses state standards, state tests, and the essential skills that students need for adulthood.

When deciding what to teach and how much time to devote to a topic, teachers must consider their state standards and state tests. But state standards are more ambitious in terms of content than schools can hope to cover with the existing time and resources. Teachers may feel isolated in

making the decision on which standards to teach and which to ignore. Certainly, covering material that will be on the state tests makes sense, but this is not always easy to determine from the testing information provided. Changes in state testing programs do not always reflect the standards. Should teachers ignore the standards and only teach to the test? Possibly, but many essential standards are not tested, such as speaking and listening skills.

Teachers can reduce their anxiety about making isolated decisions on teaching priorities by using data. The Curriculum Matrix, created by the International Center for Leadership in Education in partnership with EdGate, is a powerful, easy-to-use tool to assist teachers in improving the performance of their students on high-stakes assessments while making sure students acquire the knowledge and skills they will need to succeed in life.

The Curriculum Matrix correlates a state's standards in English language arts, mathematics, and science with (1) the state assessments required by NCLB, and (2) the results of the Curriculum Survey of Essential Skills, in which 20,000 educators and community members identified the most essential curricular content for high school graduates.

The Curriculum Matrix indicates which state standards/benchmarks/ performance indicators/topics are high priorities based on whether they are tested and whether they were rated highly in the Curriculum Survey of Essential Skills.

With this tool at their fingertips, educators can make informed decisions about whether to place more or less emphasis on a standard, confident in the knowledge that the decisions will help students succeed on tests and are consistent with what educators and the community believe a high school graduate should know and be able to do.

The Curriculum Matrix example on the next page provides a sample entry.

Curriculum Matrix
Sample Page

| Your state standards | The essential skills crosswalked to your state standards | Your state test crosswalked to your state standards | Summary of priority ratings in Columns 3 and 4 (helps teachers prioritize instruction) | | |

Column 1	Column 2		Column 3	Column 4	Column 5
Communication Arts Standards/Benchmarks/Indicators Grade 11	**Curriculum Survey of Essential Skills** National Ranking	**Rank**	**State Test Grade 11**	**Curriculum Survey**	**Priority**
Standard 2 – Writing Learners write effectively for a variety of audiences, purposes, and contexts **Benchmark 1:** A proficient writer uses ideas that are well developed, clear and interesting.					
Indicator 1: select topics that are original and appropriate to the task.	3	Gather information from a variety of sources, including electronic sources, and summarize, analyze, and evaluate its use for a report.	H	H	H
Indicator 2: write insightfully from knowledge or experience.	36	Use ideas from journals, class discussion and literary criticism to write a paper that expresses an opinion, sustains a controlling idea, or uses evidence from literary texts to support an opinion.	H	M	H
Benchmark 2: The proficient writer uses authentic and appropriate voice					
Indicator 1: write expository, technical, or persuasive pieces that reflect a strong commitment to the topic and an effort to bring it to life by anticipating the reader's questions and showing why the reader should want to know more.	12	Draft a report that engages an audience and is concise, clear, well organized, accurate, and informative.	L	H	M

Essential skill ranking
(out of 101 English topics)

Priority ratings of essential skills
1-35=High; 36-70=Medium; 71 & up=Low

- The first column lists the standards used by the state.
- The second column provides the related essential skill and its rank in the Curriculum Survey.
- The third column indicates how many questions on the relevant assessment were related to the standards in the first column, categorizing the standards as appearing with high (H), medium (M), or low (L) frequency.
- The fourth column indicates whether each standard in the first column was considered high (H), medium (M), or low (L) priority by the respondents to the Curriculum Survey.
- The fifth column gives an overall priority rating for the standard based on both frequency on the assessment and the opinion of the public as to its importance.

Creating Small Learning Communities

Using the priority data on standards available in the state Curriculum Matrix, teachers can make data-driven decisions about which standards to emphasize. Without such data, teachers must choose between trying to cover all the standards superficially or eliminating some, which runs the risk of leaving students unprepared for the assessments or without the skills considered essential for adult life. With data, however, teachers can make decisions to place more or less emphasis on a standard or to skip it completely, confident in the knowledge that the decisions will help students succeed on the assessments and that they are consistent with public expectations. Although teachers may wish to incorporate supplemental criteria in making decisions about emphasizing, adding, or deleting topics, using Curriculum Matrix data in this manner provides a clear indication of the impact of such decisions.

Curriculum Matrix data is provided in three separate professional development resource kits: *Aligning Standards, Tests and Essential Skills to Improve Instruction* includes a number of professional development activities for implementing state standards in addition to the Curriculum Matrix data. *Increasing Academic Success for All Students with Disabilities* includes the K-12 Curriculum Matrix data for your state customized for special education teachers. *No Child Left Behind State-specific Resource Kit for School Leaders* guides administrators in ways they can meet the challenges of Adequate Yearly Progress (AYP) in addition to the Curriculum Matrix data.

EdGate, a partner with the International Center, provides the Curriculum Matrix via the Internet along with an extensive database of lesson plans, assessments and resources linked to each state's standards.

Integrate Academic Skills

Career and Technical Education

The CTE Curriculum Matrix is an extension of the original Curriculum Matrix. The CTE Curriculum Matrix is designed to enable CTE educators to identify the critical math, science, and English skills and knowledge that they can incorporate into their courses. Teaching and reinforcing these test priorities in CTE programs will help these students fare better on the state academic exams.

Not surprisingly, when CTE students are taught these high-priority standards in an applied setting, they learn them well.

CTE Curriculum Matrix
Sample Page

Essential skill ranking
(out of 87 math topics)

State test

Mississippi Mathematics Competencies/Objectives Algebra I (Test High School)	Essential Skills National Rank	SATP	Business & Admin. Marketing Management Technology	Health Science		Human Services		Arts, AV Tech. & Comm. Graphics and Print Communications	Hospitality and Tourism	
				Aging Services	Allied Health	Cosmetology	Child Care and Guidance Mgt. and Services		Lodging and Hospitality	Food Production, MGT and Services
Competency 3: Simplify algebraic expressions, solve and graph equations, inequalities and systems in one and two variables.										
a. Solve, check, and graph linear equations and inequalities in one variable, including rational coefficients.	m35 m45 m64	H	M	M	M	M	M	H	M	M
b. Graph and check linear equations and inequalities in two variables.	m71 m82	H	H	H	H	H	H	H	H	H
c. Solve and graph absolute value equations and inequalities in one variable.		H	H	M	M	M	M	H	M	M
d. Use algebraic and graphical methods to solve systems of linear equations and inequalities.	m7	H	H	M	H	M	M	M	M	M
e. Translate problem-solving situations into algebraic sentences and determine solutions.	m7	H	H	M	H	M	M	H	M	H
Competency 4: Explore and communicate the characteristics and operations of polynomials.										
a. Classify polynomials and determine the degree.		H	H	M	M	M	M	H	M	M
b. Add, subtract, multiply, and divide polynomial expressions.	m11 m37 m41 m46	H	H	M	H	M	H	H	M	H
c. Factor polynomials using algebraic methods and geometric models.	m22	H	M	M	M	M	M	M	M	M
d. Investigate and apply real-number solutions to quadratic equations algebraically and graphically.	m53	H	M	L	L	L	L	L	L	M
e. Use convincing arguments to justify unfactorable polynomials.		H	M	L	L	L	L	L	L	L
f. Apply polynomial operations to problems involving perimeter and area.		H	H	H	H	M	H	H	H	H

Academic Excellence Through Career and Technical Education incorporates the Curriculum Matrix, which correlates your state standards in math, science, and English language arts to the state testing program and to a national survey of the essential skills that graduates need in their post-school lives. In this kit, the Curriculum Matrix has been expanded to show which English, math and science test priorities can be addressed in each CTE area.

Arts Education Curriculum Matrix
Sample Page

Essential skill ranking (out of 101 ELA topics)   **State test**

Arkansas English Language Arts Standards/Expectations Grade K-4	Curriculum Survey of Essential Skills National Rank	State Criterion Reference Test	Visual Arts	Dance	Music	Theatre
Strand 1: Writing						
Content Standard 1: Students will employ a wide range of strategies as they write and use different writing process elements appropriately to communicate with different audiences for a variety of purposes.						
W.1.1. Move from visual and spoken experiences to written language through positive modeling.		L				
W.1.2 Understand the relationship between letters and words, words and sentences, sentences and paragraphs, and paragraphs and whole pieces.	e9	H		H	H	H
W.1.3. Follow patterns from predictable books, poems and stories.		L				
W.1.4. Use individual and collective strategies for finding and developing ideas about which to write.	e34 e40	L				
W.1.5. Write from experiences and thoughts.	e31 e73 e88	H	H	H	H	H
W.1.6. Write in one or more subject areas daily.	e58	L	M	M	M	M
W.1.7. Recognize and express cultural diversity in writing.		H	M	M	M	M
W.1.8. Respond appropriately to the writing of others.	e87	L				
W.1.9. Use the responses of others to review writing for clarity, style and content.	e87	L				
W.1.10. Acquire information with the use of computers and other available technology to gather, write and revise texts.	e3 e36a	L				

The Arts

With the ongoing emphasis on high-stakes testing, schools need to provide students with multiple pathways to success by focusing on their strengths and interests. This kit will help arts education teachers and leaders implement a discipline-based arts education program that assists all learners with improved academic performance. The state-specific K-12 Arts Education Curriculum Matrix included in the kit crosswalks high-priority English language arts, math, and science standards to the visual arts, music, theatre, and dance. Staff development activities are provided to help arts educators incorporate English language arts, mathematics, and science standards in their teaching.

Ways to Use the CTE Matrix and Arts Matrix

The career and technical education and arts versions of the Curriculum Matrix give teachers valuable data and time-saving resources for connecting instruction. This is particularly useful to career and arts academies. These matrices can be used in several ways.

Audit of Courses — Using a roadmap of the high priority standards and those that are most easily integrated into career and arts instruction, teachers in those areas can audit their instruction to verify which of the skills and knowledge are taught in the context of the career or arts courses. Using the Matrix gives teachers a short list to work with and one that is in the format of state standards. This format can be easily shared with all staff. By using this Matrix, career-related courses can be directly related to state standards and provide for all instruction in the career academy to be focused on state standards.

Developing Relevant Lessons — When teachers in a career or arts academy are attempting to develop relevant and interdisciplinary lessons, they can start to work on those standards that are high priority and those that can be most easily integrated. The matrix gives the academic teacher an indication of which parts of the curriculum are most easily integrated and where he or she should begin to develop relevant lessons related to the theme. These lessons will have high impact on student achievement because they will focus on application of high-priority standards.

Modification of Assessment — Teachers in the arts and career and technical education provide natural applications of academic skills in their instruction. There are many areas of crossover that occur readily in the course of good teaching. However, the application of these academic skills is often not assessed. For example, a student completing a project in the arts or a career and technical area often must gather information from a variety of sources. This directly relates to one of the important language arts standards. Teachers in the arts and CTE can better reinforce these skills if

they include them in their assessments. One the best places for these in an assessment is as criteria in a scoring guide for a project. The Curriculum Matrix can be used to identify high priority standards that can be applied in the context of arts and career and technical areas. These should be included in appropriate assessment criteria. It does not significantly change the student work, but it does reinforce the application of these important standards. Where there are common standards that cut across many areas, schools should develop standard assessments or scoring guides to evaluate student work. For example, many schools use a standard scoring guide to evaluate student writing regardless of the course in which it occurs.

Develop Rigorous and Relevant Instruction

Teachers have a great capacity to develop creative, engaging instruction for students. Once they understand the Rigor/Relevance Framework, they have a common language and clearer vision of higher expectations that will guide curriculum planning with colleagues. The International Center has developed several resources to assist local administrators, curriculum coordinators, and staff developers in helping teachers understand and apply the Rigor/Relevance Framework.

The *Planning Rigorous and Relevant Instruction* resource kit is ideal for local staff or curriculum developers. In addition to the references the teacher can use, it includes teacher activities, workshop outlines, video, and PowerPoint slides. With these extensive resources any school leader can provide staff development to teachers to help them apply the Rigor/Relevance Framework.

The *Rigor and Relevance Handbook* is an excellent reference to help teachers fully understand the Framework and reflect on the levels of rigor and relevance in their own instruction. The Handbook includes many tools and references to assist teachers in planning and improving curriculum, instruction, and assessment.

Teach for Rigor and Relevance

The other resource kit that curriculum coordinators and staff developers should consider is *Instructional Strategies: How to Teach for Rigor and Relevance*. The resource kit includes references, handouts, PowerPoint Slides, and activities to help teachers develop further in achieving rigor and relevance in their teaching. The kit includes suggestions on 17 commonly used instructional strategies and how these correlate to the Rigor/Relevance Framework. By using these development activities, teachers will be more effective in using these strategies, but more importantly will know when to use these strategies based upon the expectations of the curriculum. A companion Teacher Handbook has tips on using each of the strategies and self-reflection checklists for teachers to improve their own practice.

Teachers looking for ideas on how to provide high rigor and high relevance can benefit from the experience of dozens of master teachers who contributed to Using *Gold Seal Lessons to Improve Instruction.* The performance tasks with scoring guides are high rigor/high relevance learning.

Appendix - Tools

Chapter 1

Rubric for **10 Key Components of School Improvement**				

1. Create a culture that embraces the belief that all students need a rigorous and relevant curriculum *and* all children can learn.

Prior to completing this portion of checklist, please review and reflect on:

Administrator Interview	School Observation
Staff Interviews	Classroom Observation
Teacher Survey	Student Work Analysis
Parent Focus Group Interviews	School Improvement Plan and Reports
Student Focus Group Interviews	School Practices Analysis
	Curriculum Processes

	Pervasive	Partial	Initiated	Absent
1. References to high student expectations appear in vision and mission statements of the school.				
2. The belief is reflected in student and teacher handbooks.				
3. The belief is pervasive among school personnel, with no apparent dissenters.				
4. The belief is evident in conversations with non-teaching personnel.				
5. The belief is evident in conversations with administrators.				
6. The belief is evident in conversations with faculty.				
7. The belief is evident in conversations with students.				
8. Students have a clear and ambitious picture of what they will do in the future.				
9. Students know and understand the meaning of quality work.				
10. The need for high expectations is communicated to parents and community in newsletters, reports, and school policies; at school events and parent conferences; and on the school's Website.				
11. Student achievement is recognized and celebrated frequently.				
12. Administrator evaluations are based on student achievement.				
13. Teacher evaluations are based on student achievement.				
14. The school's emphasis on learning is reflected in the displays, posted material and awards within the building.				
Comments:				

2. **Use data to provide a clear, unwavering focus on curriculum priorities that are both rigorous and relevant by identifying what is essential for students to learn.**				
Prior to completing this portion of checklist, please review and reflect on: Administrator Interview Staff Interviews Classroom Observation Curriculum Review Student Performance Data School Improvement Plan and Reports Available Data Sources School Practices Analysis				
	Pervasive	Partial	Initiated	Absent
1. The school has a written vision that focuses on student achievement.				
2. There are measurable goals tied to the vision.				
3. The school's program of work is aligned to the vision.				
4. There is a willingness to explore ways to use data to measure progress.				
5. The school has data on student performance related to their goals.				
6. The school examines data for all 9 subgroups to measure success of all students.				
7. Student achievement data is used to plan staff development.				
8. Student achievement data is used to reward teacher and staff performance.				
9. The school has an assessment program based on district and state standards.				
10. The school uses data to align curriculum both vertically across grades and horizontally across subjects.				
11. Assessment data is provided to parents, students, and teachers in a format that can be used to make informed instructional decisions.				
12. The school regularly reviews data to develop school improvement plans and to monitor progress.				
13. The school looks for trends in data over time.				
14. The school uses multiple indicators, including student work, not just one set of test scores, to analyze student performance.				
15. School prepares regular reports that celebrate student and faculty achievements and to communicate school's goals.				
Comments:				

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3. Set high expectations that are monitored, then hold both students and adults accountable for students' continuous improvement in the priorities identified in #2.

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Prior to completing this portion of checklist, please review and reflect on:

Administrator Interview
Staff Interviews
Parent Focus Group Interviews
Student Focus Group Interviews
Classroom Observation
Curriculum Review

Student Work Analysis
Student Assessment Analysis
Student Performance Data
School Improvement Plan and Reports
Available Data Sources
School Practices Analysis

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		Pervasive	Partial	Initiated	Absent
1.	Teachers and administrators communicate high expectations for student academic performance both within the school and within the community.				
2.	No excuses are accepted for students not being successful. Unmet expectations are seen as a problem that can and must be corrected.				
3.	Additional time, resources, and other interventions are available to students not meeting expectations.				
4.	All students, regardless of ability, have opportunities identified in the curriculum to engage in higher order thinking skills and problem solving tasks.				
5.	The school uses a variety of rubrics as often as applicable so that students can see what quality work looks like.				
6.	Student progress is monitored frequently with formal and informal assessments.				
7.	Student progress reports are regularly shared with students and parents				
8.	Faculty members regularly meet to discuss the progress of individual students				
9.	Students and parents sign compacts that spell out academic expectations.				
10.	Advisement/mentoring programs are available to identify students who are a risk of not meeting expectations.				
11.	All students are regularly encouraged to do their best work and to "go the extra mile." Extra effort is also encouraged and rewarded.				
12.	Pre-testing in classrooms is used often to ensure that students are consistently challenged but not overwhelmed.				
13.	There is evidence of increased enrollments in AP courses/IB and higher rates of student achievement.				
14.	A broad range of intervention programs is available immediately when students do not meet expectations.				

Comments:

4. Create a curriculum framework that drives instruction toward both rigor and relevance *and* leads to a continuum of instruction between grades and across disciplines.

Prior to completing this portion of checklist, please review and reflect on:

Administrator Interview
Staff Interviews
Classroom Observation
Curriculum Review
Student Work Analysis

Student Assessment Analysis
Student Performance Data
School Practices Analysis
Curriculum Processes

	Pervasive	Partial	Initiated	Absent
1. A process is in place to design and update curriculum based on analyses of state standards, assessments, and local priorities.				
2. There is agreement among teachers about the academic skills and knowledge to be taught.				
3. Common rubrics have been designed and are used across disciplines in areas of writing, research projects, demonstrations, problem solving, and decision making.				
4. Teachers regularly collaborate and design interdisciplinary lessons and projects linked to high priority standards				
5. There is evidence that all teachers, regardless of subject area, take responsibility for delivering high priority academic skills and knowledge.				
6. Literacy development is an important priority in the school and is addressed in all disciplines.				
7. Instruction is aligned with curriculum and state and local assessments.				
8. Curriculum topics are sequenced. There is a school wide delivery plan.				
9. Faculty work together to create learning experiences that are challenging, allowing students to think independently and extend their knowledge.				
10. Learning experiences relate to problems or situations connected to the world beyond school.				
11. Learning experiences allow students to become actively engaged in tasks that lead directly to learning objectives.				
12. Faculty receives reading levels of students and review the reading levels reflected in their textbooks.				
13. Faculty shares techniques/ strategies that successfully differentiate learning for students functioning at different literacy levels.				
14. Instruction demonstrates that textbooks are used to support learning rather than a "cookbook".				

Comments:

5. Provide students with real-world applications of the skills and knowledge taught in the academic curriculum.

Prior to completing this portion of checklist, please review and reflect on:

Administrator Interview
Staff Interviews
Teacher Survey
Parent Focus Group Interviews
Student Focus Group Interviews

School Observation
Classroom Observation
Curriculum Review
Student Work Analysis
Student Assessment Analysis
Curriculum Processes

	Pervasive	Partial	Initiated	Absent
1. There is a strong focus on teaching the application of content knowledge to real-world situations through class and individual projects, hands-on activities, and various methods of communication.				
2. Faculty regularly reviews instructional practices and makes modifications to make them more relevant.				
3. Students understand the purpose of instruction and how skills and knowledge can be applied.				
4. A good portion of student work is analytical – research papers, projects, demonstrations, experiments, extended writing.				
5. Faculty work together in interdisciplinary teams to create learning experiences that focus on the application of knowledge in real world settings.				
6. The school uses community resources to bring relevancy to the instructional programs.				
7. Students are typically asked to present their work to their peers.				
8. Faculty uses strategies to connect learning to students' experiences and previous learning.				
9. Students are given choice regarding projects and learning experiences.				
10. Students work collaboratively in groups.				
11. Assessment practices are rich and include a variety performance measures such as portfolios, projects, peer reviews, presentations.				
12. Teachers regularly demonstrate how to apply learning and use real-world examples.				
13. Internships and/or community service projects are a major focus of the instructional program.				
14. Community representatives are invited to participate as advisors, mentors and reactors to student work.				

Comments:

6. Create multiple pathways to rigor and relevance based upon a student's interest, learning style, aptitude, and needs.

Prior to completing this portion of checklist, please review and reflect on:

Administrator Interview
Staff Interviews
Teacher Survey
Parent Focus Group Interviews
Student Focus Group Interviews

School Observation
Classroom Observation
Curriculum Review
Student Work Analysis
School Practices Analysis
Curriculum Processes

	Pervasive	Partial	Initiated	Absent
1. Teachers know their students very well (examples: teachers attend after-school events, have lunch with students, make it a practice to call student's homes, and are involved with advisement/mentoring programs).				
2. Teachers are skilled in ways to differentiate instruction and regularly employ such practices.				
3. Applied academic programs have been developed based on student needs and interests.				
4. It is common practice, supported by the school schedule and structure, to vary amounts of instructional time and resources students need to achieve proficiency				
5. Teachers use a variety of instructional approaches and strategies in the classroom.				
6. Surveys are used to learn about student interests.				
7. Students have choices and options regarding their learning.				
8. Pre-testing and other data is used as a tool to individualize instruction.				
9. The organization of the school promotes the flexible use of time and resources to meet student needs. The school is organized around the needs of students.				
10. Media centers, counseling services, and study labs are readily available to all students.				
11. Technology is used effectively as a tool to differentiate instruction and as a resource for all students.				
12. A consistent process is used by teachers to develop instructional plans.				
13. Instructional plans are shared among teachers.				
14. The instructional planning process is consistent across the school.				
15. Available resources are discussed to determine the appropriate uses to met the goals and mission of the school.				

Comments:

7. Provide sustained professional development focused on improving instruction.				
Prior to completing this portion of checklist, please review and reflect on: Administrator Interview Staff Interviews Teacher Survey School Improvement Plan and Reports School Practices Analysis Curriculum Processes				
	Pervasive	Partial	Initiated	Absent
1. Teachers keep up with new ideas in their fields and employ innovative and effective instructional practices.				
2. Professional development is a significant school wide emphasis.				
3. Acquiring/developing a high-quality staff is considered the most important factor related to student achievement.				
4. Teachers have time, opportunities, and incentives to reflect critically and analytically on what they are teaching, not teaching, and why.				
5. Root causes of obstacles to student achievement have been identified and serve as topics for staff development.				
6. A comprehensive plan sets the priority for use of funds for instructional improvement, teacher evaluation, and professional development.				
7. The professional development program is aligned with the instructional improvement plan.				
8. The school has a process to share best practices of faculty throughout the school (study circles, peer reviews, etc.).				
9. Every teacher and administrator has an individual improvement plan.				
10. Resources and research are routinely collected and distributed and discussed with staff.				
11. Professional development programs are routinely evaluated and modified accordingly.				
12. Faculty teamwork is a "way of life" in the school.				
13. The use of faculty time and resources reflect the school's emphasis on development of literacy skills and independent learners.				
14. The culture of the school includes celebration of both student and faculty achievement.				
Comments				

8. Obtain and leverage parent and community involvement.

Prior to completing this portion of checklist, please review and reflect on:

Administrator Interview
Staff Interviews
Teacher Survey

Parent Focus Group Interviews
School Improvement Plan and Reports
School Practices Analysis

	Pervasive	Partial	Initiated	Absent
1. There is a school policy that invites parents and interested community members.				
2. Parents and community members are invited to participate in school activities.				
3. Some parents and community members work in the school as volunteers or paraprofessionals.				
4. Faculty and administrators have the belief that educating students is more effective when parents understand and buy into the principle upon which the school operates.				
5. Conditions and personnel in the school are inviting and welcoming, which encourages and supports parental involvement.				
6. The school uses a variety of resources and strategies to help parents understand the standards, assessments, and academic achievement requirements for students.				
7. The school has taken steps to make media center, athletic facilities, and other school facilities available to community when possible				
8. The school offers adult education classes to the community.				
9. The school conducts satisfaction surveys with parents and community.				
10. The school involves parents on advisory committees for the purpose of school improvement				
11. Many of the school's programs are supported by parent/community booster clubs.				
12. The school regularly conducts focus groups for parents and community members.				
13. The administration and teachers are active in the community.				
14. The schools tracks data on parent involvement and express goals to increase parent involvement and support.				
15. It is not uncommon for the principal, other administrators, and/or teachers to visit parents at home and community agencies.				
16. Teachers are encouraged to communicate regularly with parents in writing, by phone and in person concerning student successes and needs.				
17. The school seeks ways to increase community participation in the life of the school. (free admissions, coupons, senior discounts, volunteer opportunities, etc.).				
Comments:				

9. Establish and maintain a safe and orderly school.

Prior to completing this portion of checklist, please review and reflect on:

Administrator Interview	Student Focus Group Interviews
Staff Interviews	School Observation
Teacher Survey	Classroom Observation
Parent Focus Group Interviews	School Practices Analysis
	Curriculum Processes

	Pervasive	Partial	Initiated	Absent
1. School staff fosters in students a sense of responsibility for appropriate behavior and creates an environment in which students can learn well.				
2. Students feel safe at this school.				
3. Faculty feel safe at the school.				
4. Discipline is handled in a fair, firm, and professional manner. There are appropriate interventions for disruptive students.				
5. The school tracks student behavior data and monitors incidents.				
6. The faculty accepts responsibility for improving student behavior.				
7. The school has a comprehensive character education program in place.				
8. Student, parent, and faculty handbooks are well organized and clearly spell out the expectations for student behavior and consequences for inappropriate behavior.				
9. The adults in the school are excellent role models for students and frequently find opportunities to demonstrate and explain positive character traits.				
10. Adults in the school make it a habit to talk with all students in a positive and reassuring way. Adults treat students with respect.				
11. School personnel have the habit of catching and rewarding good behavior rather than catching and punishing bad behavior.				
12. The general appearance of the school and grounds reflects a safe and orderly environment.				
13. The school has a welcoming attitude to visitors while maintaining the security of the building.				
14. All staff members, including bus drivers, cafeteria workers, custodians, office personnel, etc., are seen as contributors to achieving the mission of the school.				

Comments:

10. Offer effective leadership development for administrators, teachers, parents, and community.

Prior to completing this portion of checklist, please review and reflect on:

Administrator Interview
Staff Interviews
Teacher Survey
Parent Focus Group Interviews
Student Focus Group Interviews

School Observation
Curriculum Review
School Improvement Plan and Reports
School Practices Analysis
Curriculum Processes

	Pervasive	Partial	Initiated	Absent
1. The principal assumes, but shares, responsibility for all phases of school operations as well as relations within the school, with the school district, and with the community.				
2. Adults in the school share meaningful feedback and suggestions for improving their work.				
3. The adults in the school believe they have a responsibility to help set the tone for student behavior and create an atmosphere of high expectations				
4. Many teachers are involved in decisions that impact the entire school, not just their individual classrooms.				
5. The faculty and administration have received training on the principles of effective teamwork and leadership.				
6. The administration uses leadership teams, advisory groups, and community representatives to gather information and share goals.				
7. Administration demonstrates a support priority for literacy development by their actions and use of resources.				
8. Administration uses available technology (media, newsletters, public announcements) to communicate the mission of the school to students, faculty and community.				

Comments:

Creating Small Learning Communities

Summary

Component	Pervasive	Partial	Initiated	Absent
1. Create a culture that embraces the belief that all students need a rigorous and relevant curriculum *and* all children can learn.				
2. Use data to provide a clear unwavering focus on curriculum priorities that are both rigorous and relevant by identifying what is essential for students to learn.				
3. Set high expectations that are monitored; then hold both students and adults accountable for students' continuous improvement in the priorities identified in #2 above.				
4. Create a curriculum framework that drives instruction toward both rigor and relevance *and* leads to a continuum of instruction between grades and across disciplines.				
5. Provide students with real-world applications of the skills and knowledge taught in the academic curriculum				
6. Create multiple pathways to rigor and relevance based upon a student's interest, learning style, aptitude, and needs.				
7. Provide sustained professional development focused on the improvement of instruction.				
8. Obtain and leverage parent and community involvement successfully in schools.				
9. Establish and maintain a safe and orderly school.				
10. Offer effective leadership development for administrators, teachers, parents, and community.				

Parent Survey on
Learning Communities

Our school is committed to the following 10 characteristics of successful schools. This survey will be used to collect feedback from parents on the degree to which the school is meeting these characteristics. Your observations are welcome and appreciated.

Directions: Check **Yes** if you think this characteristic exists, **No** if you think not, and **NMI** if you Need More Information.

Name (optional): _____Date:_____

1. A culture that embraces a rigorous and relevant learning

Yes	No	NMI	
❑	❑	❑	Do students know why they are learning?
❑	❑	❑	Are students given opportunities to apply what they have learned?
❑	❑	❑	Are students active and working in classrooms?
❑	❑	❑	Are the most able students challenged?
❑	❑	❑	Does the school help prepare students to live in a culturally and ethnically diverse society?
❑	❑	❑	Does the school foster development of sound character, democratic values, ethical judgment and good behavior?

2. Data-driven decisions

Yes	No	NMI	
❑	❑	❑	Is student achievement measured frequently?
❑	❑	❑	Are multiple measures used to measure student achievement?
❑	❑	❑	Do parents get regular reports on student achievement?
❑	❑	❑	Does the school have specific quantifiable goals for student achievement?
❑	❑	❑	Over a period of years, are test scores improving?
❑	❑	❑	Do teachers check and grade homework regularly?
❑	❑	❑	Does the school survey parent satisfaction?
❑	❑	❑	Does the school survey former students for success?

3. High student expectations, monitored for continuous improvement

Yes	No	NMI	
❑	❑	❑	Are there high expectations for all students?
❑	❑	❑	Does the school display examples of excellent work?
❑	❑	❑	Are the students interested in what they are doing?
❑	❑	❑	Do struggling students get help?
❑	❑	❑	Do teachers provide clear expectations for the class and outline required student work?

Creating Small Learning Communities

4. Curriculum framework that drives instruction

Yes	No	NMI	
❏	❏	❏	Does the school's have a clear written philosophy or mission?
❏	❏	❏	Does the school work to achieve mission?
❏	❏	❏	Is the curriculum tied to state standards?
❏	❏	❏	Do the principal and teachers refer to the school goals?
❏	❏	❏	If there is an emphasis on a particular approach to teaching and learning that is carried out through all instruction?
❏	❏	❏	Do the teaching materials seem up-to-date?

5. Real-world applications

Yes	No	NMI	
❏	❏	❏	Does student work include meaningful, real world application of skills and knowledge?
❏	❏	❏	Do teachers explain how learning will be used in the real world?
❏	❏	❏	Does the school have examples of interdisciplinary instruction?
❏	❏	❏	Does the school have active community advisory committees with input on curriculum?
❏	❏	❏	Does the school require or encourage community service?

6. Multiple pathways to rigor and relevance

Yes	No	NMI	
❏	❏	❏	Are there multiple course options for students to meet core academic requirements?
❏	❏	❏	Are there options for students to take extra time to meets standards?
❏	❏	❏	Does the school offer extensive options in athletics, drama, music, art or other activities?
❏	❏	❏	Are core math, English language arts and science skills connected to career and technical instruction and the arts?
❏	❏	❏	Are there school programs that meet your child's needs?

7. Sustained professional development of highly qualified staff

Yes	No	NMI	
❏	❏	❏	Do the teachers have a background in the subject they are teaching?
❏	❏	❏	Are many teachers teaching outside the field in which they are certified or hold a degree?
❏	❏	❏	Is there a high turnover rate for teachers?
❏	❏	❏	Do teachers have opportunities for professional development?
❏	❏	❏	Do new teachers receive support to enhance their skills?
❏	❏	❏	Does the school recognize and reward excellent teacher performance?

8. Parent and community involvement

Yes	No	NMI	
❏	❏	❏	Does school staff welcome and encourage parent involvement?
❏	❏	❏	Are there expectation and/or requirements of parents?
❏	❏	❏	Are there parent volunteers?
❏	❏	❏	Are there ways the school communicates with families?
❏	❏	❏	Are other community members involved in the school?
❏	❏	❏	Does the school have partnerships with businesses or other institutions?
❏	❏	❏	Are parents involved in decisions about the education of their children?
❏	❏	❏	Does the school have a parent advisory or policy group such as a site council?
❏	❏	❏	Do all the ethnic groups in your community have a representative voice in school policy-making?

9. Safe and orderly school

Yes	No	NMI	
❏	❏	❏	Do you feel comfortable walking into the school?
❏	❏	❏	Do students treat others well?
❏	❏	❏	Is the building clean and well maintained?
❏	❏	❏	Are the restrooms clean and neat?
❏	❏	❏	Do students appear happy and relaxed?
❏	❏	❏	Are the buildings well organized and adequate for the number of students?
❏	❏	❏	Are there clear rules for discipline that are enforced fairly and consistently?
❏	❏	❏	Are there positive rewards for good behavior?
❏	❏	❏	Are there well-established levels of discipline for difference infractions?
❏	❏	❏	Are students taught methods of resolving conflicts?
❏	❏	❏	Are there standards for student behavior? Do students know what these are?

10. Effective leadership

Yes	No	NMI	
❏	❏	❏	Is there stable leadership in the school?
❏	❏	❏	Is the principal visible throughout the school?
❏	❏	❏	Is the principal knowledgeable about instruction and school activities?
❏	❏	❏	Are the roles of other administrators clearly defined?
❏	❏	❏	Are faculty, staff, parents and/or students involved in school planning and decisions?
❏	❏	❏	Are important decisions about the school made by school personnel rather than by district staff?
❏	❏	❏	Is the school or district developing future school leaders?
❏	❏	❏	Is the principal respected by staff and students?

Creating Small Learning Communities

Need for Small Learning Communities Checklist

Small learning communities offer several advantages in creating successful schools. The following checklist identifies several challenges that could be addressed by creating a small learning community. If you check "yes" to the majority of these items, one or more small learning communities may be an option worth considering at your school.

Yes   No

❑   ❑   You tried to implement such initiatives as shared decision-making or a student advisor program but with little success.

❑   ❑   Your high school has more than 1,600 students (800 students for middle schools).

❑   ❑   You have an annual dropout rate of more than 2%.

❑   ❑   You have a daily attendance rate of less than 95%.

❑   ❑   You have had several years of substandard student performance on state tests.

❑   ❑   A frequent complaint from teachers is that students lack motivation.

❑   ❑   Many students seem to "fall through the cracks" and never take advantage of the all the courses and programs that the school has to offer.

❑   ❑   You have a high number of students failing and repeating courses.

❑   ❑   You have an unsatisfactory number of discipline incidents.

❑   ❑   The faculty is fragmented, with several cliques and few examples of collaboration in instruction.

❑   ❑   Curriculum initiatives have been unsuccessful because not all teachers have fully implemented the concepts.

❑   ❑   Few parents are involved or take an interest in the school program.

Health Science Academy
Typical Four-Year Sequence

These sequences are designed to meet the preparation for careers related to the academy theme and prepare students or postsecondary education.

Grade 9	Core Courses	English 9 World History Cultures and Geography Algebra or Geometry Biology Physical Education
	Specialized Courses	Intro to Health Sciences I
	Electives	*World Language 1 elective*

Grade 10	Core Courses	English10 U.S. History / American Government Geometry or Advanced Algebra Applied Physics Physical Education
	Specialized Courses	Intro to Health Sciences II
	Electives	*World Language 2 elective*

Grade 11	Core Courses	English11 Advanced Algebra or Statistics Chemistry Physical Education
	Specialized Courses *	*Basic course in Health Sciences specialization*
	Electives	*Visual and Performing Arts elective*

Grade 12	Core Courses	English12 Economics Pre-Calculus Physical Education
	Specialized Courses *	*Health Sciences Specialization (3)*
	Electives	

* MST electives could be decided by specializations within the academy.

Academy Elective Courses

Mathematics

- Calculus
- Statistics and Modeling

Science

- Biology AP
- BioTechnology
- Chemistry AP

Health

- Anatomy and Physiology
- Job Shadowing/Internship
- CPR and First Aid
- Emergency Medical Training
- Nursing Assisting

Engineering Technology Academy
Typical Four-year Sequence

These sequences are designed to provide preparation for careers related to the academy theme and to prepare students for postsecondary education.

Grade 9	Core Courses	English 9 World History Cultures and Geography Algebra or Geometry Biology Physical Education
	Specialized Courses	Design and Drawing for Production
	Electives	*World Language 1 elective*

Grade 10	Core Courses	English10 U.S. History / American Government Geometry or Advanced Algebra Applied Physics Physical Education
	Specialized Courses	Principles of Engineering
	Electives	*World Language 2 elective*

Grade 11	Core Courses	English11 Advanced Algebra or Statistics Chemistry Physical Education
	Specialized Courses *	*Mathematics Science and Technology elective (2)*
	Electives	*Visual and Performing Arts elective*

Grade 12	Core Courses	English12 Economics Pre-Calculus Physical Education
	Specialized Courses *	*Mathematics Science and Technology electives (3)*
	Electives	

* MST electives could be decided by specializations within the academy.

Academy Elective Courses

Mathematics

➢ Calculus
➢ Statistics and Modeling

Science

➢ Biology AP
➢ Biotechnology
➢ Chemistry AP
➢ Earth Science
➢ Environmental Science (Oceanography)

➢ Horticultural Science
➢ Matter & Energy
➢ Molecular Biology

Technology

➢ Architectural Drawing
➢ Audio Electronics
➢ Basic Electricity
➢ Basic Electronics
➢ Biotechnical Engineering

➢ Computer Integrated Manufacturing
➢ Construction
➢ Digital Electronics
➢ Engineering Design and Development
➢ Introduction to Engineering Design
➢ Manufacturing
➢ Materials Processing
➢ Residential Structures
➢ Transportation Systems

Arts Academy
Typical Four-Year Sequence

These sequences are designed to meet the preparation for careers related to the academy theme and prepare students for postsecondary education.

Grade 9	Core Courses	English 9 World History Cultures and Geography Algebra Biology Physical Education
	Specialized Courses	*Arts Elective (1)*
	Electives	*World Language 1 elective*

Grade 10	Core Courses	English10 U.S. History / American Government Geometry Applied Physics Physical Education
	Specialized Courses	*Arts Elective (1)*
	Electives	*World Language 2 elective*

Grade 11	Core Courses	English11 Advanced Algebra Chemistry Physical Education
	Specialized Courses *	*Arts Elective (2)*
	Electives	*Visual and Performing Arts elective*

Grade 12	Core Courses	English12 Economics Pre-Calculus Physical Education
	Specialized Courses *	*Arts electives (3)*
	Electives	

* Arts electives could be decided by specializations within the academy.

Academy Elective Courses - Arts

Graphics/Commercial Design	Modern Dance III	Band
Photography	Modern Dance IV	Concert Band
Film Making	Ballet I	Symphonic Band
Electronic Art	Ballet II	Wind Ensemble
Art History	Dance History	Stage Band
Introduction to Theatre	Folk Arts	String Class
Theatre Arts I	Studio Art	String Ensemble
Theatre Arts II	Glee Club	Orchestra
Technical Theatre I	Boys' Chorus	Concert Orchestra
Technical Theatre II	Girls' Chorus	Electronic Music
Acting	Chorus I	Guitar Class
Directing	Chorus II	Piano Class
Theatre History	Concert Choir	Symphonic Orchestra
Play Production	Cappella Choir	
Modern Dance I	Music Theory	
Modern Dance II	Music History/Appreciation	

Business Academy
Typical Four-year Sequence

These sequences are designed to provide preparation for careers related to the academy theme and to prepare students for postsecondary education.

Grade 9	Core Courses	English 9 World History Cultures and Geography Algebra or Geometry Biology Physical Education
	Specialized Courses	Business Analysis/Business Computer Application
	Electives	*World Language 1 elective*

Grade 10	Core Courses	English10 U.S. History / American Government Geometry or Advanced Algebra Applied Physics Physical Education
	Specialized Courses	Keyboarding /Communications
	Electives	*World Language 2 elective*

Grade 11	Core Courses	English11 Advanced Algebra Chemistry Physical Education
	Specialized Courses *	*Business Elective (2)*
	Electives	*Visual and Performing Arts elective*

Grade 12	Core Courses	English12 Economics Pre-Calculus Physical Education
	Specialized Courses *	*Business electives (3)*
	Electives	

* Business electives could be decided by specializations within the academy.

Academy Elective Courses

Mathematics

- Calculus
- Statistics and Modeling
- Business Mathematics

Business

- Advanced Computer Applications
- Business & Financial Management
- Business Internship
- Business Law
- Computerized Accounting
- Fashion Merchandising
- Marketing
- Marketing Internship
- Network Administration
- Office Technology and Procedures I
- Office Technology and Procedures II
- Small Business/Entrepreneurship
- Sports Marketing
- Travel/Tourism & Recreation

Information Technology Academy
Typical Four-year Sequence

These sequences are designed to provide preparation for careers related to the academy theme and to prepare students for postsecondary.

Grade 9	Core Courses	English 9 World History Cultures and Geography Algebra or Geometry Biology Physical Education
	Specialized Courses	Computer Application
	Electives	*World Language 1 elective*

Grade 10	Core Courses	English10 U.S. History / American Government Geometry or Advanced Algebra Applied Physics Physical Education
	Specialized Courses	Information Technology and the Internet
	Electives	*World Language 2 elective*

Grade 11	Core Courses	English11 Advanced Algebra Chemistry Physical Education
	Specialized Courses *	*Information Technology elective (2)*
	Electives	*Visual and Performing Arts elective*

Grade 12	Core Courses	English12 Economics Pre-Calculus Physical Education
	Specialized Courses *	*Information Technology electives (3)*
	Electives	

Academy Elective Courses

Mathematics

➢ Calculus
➢ Statistics and Modeling
➢ Business Mathematics

Information Technology

➢ Advanced Web Tools
➢ College level IT course
➢ Databases
➢ Digital Media
➢ Digital Networks
➢ Logic for Programming
➢ MOUS Certification
➢ Network Administration
➢ Programming (C++ and Java)
➢ System Support & Maintenance

Finance Academy
Typical Four-year Sequence

These sequences are designed to provide preparation for careers related to the academy theme and to prepare students for postsecondary education.

Grade 9	Core Courses	English 9 World History Cultures and Geography Algebra or Geometry Biology Physical Education
	Specialized Courses	Intro to Business Recordkeeping Business Computer Applications
	Electives	*World Language 1 elective*

Grade 10	Core Courses	English10 U.S. History / American Government Geometry or Advanced Algebra Applied Physics Physical Education
	Specialized Courses	Business Law/ Principles of Marketing Accounting I
	Electives	*World Language 2 elective*

Grade 11	Core Courses	English11 Advanced Algebra Chemistry Physical Education
	Specialized Courses *	Banking and Financial Systems Accounting II
	Electives	*Visual and Performing Arts elective*

Grade 12	Core Courses	English12 Economics Pre-Calculus Physical Education
	Specialized Courses *	Marketing Management International Business
	Electives	

Academy Elective Courses

Mathematics

- Calculus
- Statistics and Modeling

Business

- Advanced Computer Applications

- Business & Financial Management
- Business Internship
- Business Law
- Computerized Accounting
- Small Business/Entrepreneur

Biotechnology Academy
Four-Year Sequence

These sequences are designed to meet the preparation for careers related to the academy theme and prepare students for postsecondary education.

Grade 9	Core Courses	English 9 World History Cultures and Geography Algebra or Geometry Biology Physical Education
	Specialized Courses	Biotechnology I
	Electives	*World Language 1 elective*

Grade 10	Core Courses	English10 U.S. History / American Government Geometry or Advanced Algebra Applied Physics Physical Education
	Specialized Courses	Biotechnology II
	Electives	*World Language 2 elective*

Grade 11	Core Courses	English11 Advanced Algebra or Statistics Chemistry Physical Education
	Specialized Courses *	*Science Electives*
	Electives	*Visual and Performing Arts elective*

Grade 12	Core Courses	English12 Economics Pre-Calculus Physical Education
	Specialized Courses *	*Science electives*
	Electives	

Academy Elective Courses

Mathematics

- Calculus
- Statistics and Modeling

Science

- Anatomy and Physiology

- Biology AP
- Chemistry AP
- Environmental Science AP
- Human Genetics
- Internship or Senior Project
- Molecular Biology
- Physics AP

Creating Small Learning Communities

Parent Questions and Answers about Career Academies

Following are questions parents are likely to ask when a school is creating a career academy and some suggested answers.

Question: **What are the expectations of the students in the career academy?**

Answer: The expectations are only slightly different from any high school program. Students will complete all of the core academic courses required for graduation. Grading for these courses is no different. What will be different is the work that students will do in the core academic courses. While studying English language arts or mathematics, students will apply the skills they are learning to the career field. This is intended to increase interest in learning. Students will choose elective courses related to the career theme. Internships in the career field are optional but encouraged, because they provide additional learning opportunities and help students decide if they are truly interested in the career field.

Question: **How will this career academy be better than a regular high school program?**

Answer: First, this academy will be a smaller school in which students will be working with a small group of teachers. The goal is for these teachers to get to know the students better, understand their strengths and challenges, and provide them support in becoming successful in school. Second, the career academy helps students understand how core academic skills are important to the real world. The career academy also helps students explore their interests early on. Even deciding that they don't enjoy engineering or medicine is a good career decision. Making these decisions in high school is less costly than making them in the middle of a college program. The goal is to expose students to careers and still leave many options open to them.

Question: **What will be different instructionally in the academy program?**

Answer: The curriculum still connects to state standards, just like all the other programs. But in the academy, teachers are expected to relate what the student is learning to the career field.

Question: **What happens if students change their interest in the academy theme?**

Answer: Education in the career academy is broad and relates to a wide range of careers and job levels. Students will not focus on any single job preparation. However, if the student's interest does change, there are options. Students will have fulfilled the core requirements required of all students. To change to another career academy, the student must apply again and there must be space available.

Question: **If my son [or daughter] is in an academy, does that mean he [she] will not go to college?**

Answer: No, every student in the academy will have all of the necessary high school courses required for entry into college, including some advanced courses. Some students will apply to four-year universities; others may choose two-year colleges. The same range of options will exist for them as for all other students.

Question: **Do students have to go on to college in the same major as the career academy?**

Answer: No. The high school academy does not limit college choices to majors in the same field. Hopefully, though, the academy will give students an advantage when applying to colleges in a major similar to the academy.

Question: **Are the students expected to work in this field while they are high school?**

Answer: There is no required outside employment. The school is setting up internships for students who wish to do job shadowing or work in a job related to the career academy. However, while this is an option for students, whether a student works and the type of work are family and student decisions.

Schools that Say "Welcome"

Use this checklist to evaluate your school's relationship with parents.
Does your school say "welcome" in every aspect of the school culture?

YES   NO

❑   ❑   Office staff greets visitors in a friendly, courteous way.

❑   ❑   When parents pass staff in the hallways, they are greeted warmly.

❑   ❑   Staff members offer assistance if anyone appears lost or is new to the school.

❑   ❑   Teachers, staff and students answer the telephone in a friendly, professional way.

❑   ❑   A welcome sign (in all common languages of the community) and school map are displayed near the entrance.

❑   ❑   There is an area where visitors can easily find information about the school and curriculum.

❑   ❑   The school holds regular social occasions or events where parents and school staff can get to know each other.

❑   ❑   An orientation program is provided for new families in the district.

❑   ❑   Parents are welcome at all times in the school building and classrooms.

❑   ❑   The community uses the building frequently for planned events.

YES   NO

❏   ❏   Translated signs and materials as well as translators are available for parents with limited English in order for them to understand the curriculum and participate in activities.

❏   ❏   Information about school rules, parent-teacher conference, school and classroom policies, and bus and lunch schedules is available to parents/guardians.

❏   ❏   A resource center exists for parents and teachers that has comfortable furniture. It provides parenting information and has support available (e.g., copy machine, computer, desk) for parents' school-related activities.

❏   ❏   There is a bulletin board on which parents can post news and announcements.

❏   ❏   The library is accessible to parents.

❏   ❏   Principal and staff are willing to listen to parent/guardian concerns about issues.

❏   ❏   Volunteers are visible, offer greetings, and are knowledgeable about the school.

❏   ❏   Security staff members, if present, are friendly in carrying out their duties to identify visitors.

❏   ❏   There is ample and convenient parking available for parents when they visit the school.

Chapter 2

Team Roles

To keep the team focused on accomplishing the work of the team, all members have the role of active participant and the responsibility of active engagement. In addition, a few individuals need to assume specific functions related directly to the team's success. These "lead" roles may be elected or volunteer; some roles could be rotated with each meeting.

Facilitator — *The facilitator, or team leader, manages the team. The facilitator is key to the consistency and long-term continuity of the team, its ongoing work, and accomplishments. Thus, this role usually is not rotated.*

- Ensures the meeting purposes are clear
- Prepares an agenda planned in advance
- Keeps the team on task on the agenda items
- Focuses on the items the team is to address
- Ensures the group's adherence to established norms
- Ensures all members the opportunity to participate
- Helps members actualize their potential
- Provides team reflection time

Timekeeper — This individual keeps the team on schedule.
- Attempts to make sure agenda items keep to time allotted
- Reminds group of limited time left to address agenda item
- Suggests negotiating for more time on an item during the meeting or revising the agenda

Recorder—The recorder keeps an accurate, objective record of the meeting.
- Records actions agreed to by the team
- Prepares the meeting minutes for distribution to team members
- May be requested to communicate to others outside the team

Process Consultant—An "observer" of the team's functioning and adherence to the group norms.
- Observes patterns of communication and behavior
- Provides reflective feedback at the end of the meeting on the team's effectiveness and achievements

Team Problem-solving Form

Identify one problem on which the team will focus in a regular team meeting. List the data used to define the problem. Then brainstorm actions to take and the data that will be used to evaluate the effectiveness of actions taken.

Identified Problem

Data to Identify Need

Actions to be Taken

Data to Measure Results

Effective Decision-making Checklist

Use this checklist to evaluate the effectiveness of your decisions.

Yes	No	
❑	❑	Everyone was familiar with the decision method being followed; e.g., consensus, majority vote.
❑	❑	Enough time was devoted to the item.
❑	❑	The facilitator was objective and open-minded in facilitating discussion of the item.
❑	❑	The item voted on was clearly stated and understood.
❑	❑	The item voted on related to a measurable goal.
❑	❑	All ideas were considered and modified as appropriate.
❑	❑	More than one solution was explored before a decision was made
❑	❑	Everyone had an opportunity to raise questions, give their opinions, express their agreement/disagreement.
❑	❑	Members with disagreeing opinions were given time to express their concerns, hesitations, and dissenting thoughts.
❑	❑	If consensus agreement was used, all team members were supportive of the decision.

Effective Meetings Checklist

Use this checklist to evaluate the effectiveness of your meetings.

Yes   **No**

❏   ❏   An agenda was prepared and distributed before the meeting.

❏   ❏   Members arrived on time for the meeting and stayed until the meeting's closure.

❏   ❏   The meeting started and ended on time.

❏   ❏   The facilitator was prepared and managed the team's processes.

❏   ❏   The team focused on the topics under discussion.

❏   ❏   The team's work was clearly defined, had purpose, and related to overall goals.

❏   ❏   Team members' discussion focused on ideas and their implementation rather than logistics, housekeeping details, and other minutia.

❏   ❏   The members adhered to the team's norms.

❏   ❏   The members came to the meeting with work completed that they agreed to do and were willing to accept work assignments.

❏   ❏   Action plans were developed to follow through on team's decisions (e.g., Who will do the work? What will be done? When?) Timeline was identified.

❏   ❏   Evaluation feedback was provided by the members at the close of the meeting.

❏   ❏   Individuals with specific responsibilities (e.g., timekeeper, facilitator, recorder, process observer) added to the effectiveness of the team.

Meeting Roadmap

[Team Name-Date]

What	Results	How	Time
Agenda Items	Expected result during this meeting related to this item	Process (e.g., discussion, presentation, observation, resource person, question and answer, reporting)	Time allocated to this item

What	Results	How	Time
Example 1. Get Organized	Agreement on agenda	Discussion	5 minutes
2.			
3.			
4.			
Feedback	+/Δ	Go Around	5 minutes

+ = strengths: what was good

Δ = what should be changed for next time

Sample Meeting Ground Rules

- Respect others; be on time; listen with interest
- Interact with others
- Participate in discussions
- Be willing to compromise
- Keep the best interest of the students in mind
- Treat everyone in a dignified manner
- Keep side conversations to a minimum
- Support decisions made by consensus
- Be honest and open to the ideas of others
- Make a contribution; everyone is responsible for team success
- Learn from the past, let go of it and move forward
- Focus on issues and content, not personalities and people
- Be creative when appropriate and fact/logic-driven when needed
- Follow through on agreements and action items
- Encouraging the expression of different points of view
- Asking questions for clarification when you don't understand
- Review the effectiveness of each meeting during the meeting
- Check for consensus before finalizing decisions

Sample Format

Minutes of Meeting

Name of Team   **Date /Location of Meeting**

Facilitator:

Recorder:

Timekeeper:

Process Observer:

Members Present:

Members Absent:

Agenda Item:

  Discussion:

  Action: Yes   No

       What?
       By Whom?
       When?

Announcements:

Next Meeting Date:

Assigned Roles for Next Meeting:

  Facilitator
  Recorder
  Timekeeper
  Process Observer

Creating Small Learning Communities

Teacher Questions and Answers on Small Learning Communities

The following areas of concern are typically raised by staff.
Accompanying each concern is a suggested response.

Question: **Where will I be teaching?**

Answer: In a small learning community, staff within that community, whether it is a house structure, career academy, or freshmen prep program, share a separate physical space that has been set aside for the small learning community. So, you will probably be teaching in a different place than you are now; a place within the building that is solely for the small learning community that you will be teaching in. This will require physical moves for many of us.

Question: **What will determine my house/career academy assignment?**

Answer: Everyone will have an opportunity to request to teach in a particular house/academy. In a sense, you will be applying for acceptance into this small learning community. Where it is possible and in the best interests of students, you will be assigned to the house/academy of your choice. However, in some instances, your request may not be honored because of the need for your expertise and background in another house/academy.

Question: **How do I request to be assigned to a particular small learning community?**

Answer: An application for consideration for a house/academy will be available for you to complete and return. In some instances, a follow-up interview with the house/academy administrative leadership may be necessary.

Question: **Will staff selection be based on seniority and tenure?**

No, assignment to a house/academy staff will be made primarily on the teacher's background and expertise, the programmatic offerings, and the needs of students.

Question: **What will I be teaching?**

Answer: In small learning communities, staff continues to teach in their areas of expertise; however, instruction becomes focused on a particular theme, career, or area of interest. Core academic competencies are integrated throughout; thus, instruction becomes interdisciplinary or cross-disciplinary. Learning is contextualized, and students have more opportunities to apply their knowledge. Teaching centers on high cognitive skill development, or rigor, but also includes application, or relevance. Also, depending upon the organizational structure of the small learning community, teachers may be involved in more project-based learning and work-study programs.

Teacher Questions and Answers on Small Learning Communities

Question: **What discipline structures will exist?**

Answer: Staff will still be expected to dialogue and share expertise within disciplines across grade levels. However, a true departmental structure will no longer exist. Rather, teachers will be organized in academic teams within a house or around a career focus within an academy. Teachers will identify more with a team designed to work with a particular group of students over an extended period of time rather than identifying with their area of specialization.

Question: **What will the team structure look like?**

Answer: In the small learning community, more time will be available for collaboration and team instructional planning. Working in a cross-disciplinary academic team, teachers will share instructional techniques, plan interdisciplinary instructional activities, exchange information on the strengths and weaknesses of the students assigned to the team, and function as a professional learning community engaging in action research to improve their own instruction and the performance of their students.

The team will not only collaborate and plan together, but also work with the same group of students over an extended time. This enables the teachers to better understand the needs of their students.

Question: **What types of instructional strategies will be expected?**

Answer: The small learning community structure provides greater opportunities to design instruction around the individual needs of the learner. Thus, a large repertoire of instructional strategies is used to engage students. Since instruction is often focused on a career or theme, it becomes more feasible to include application-based instructional activities.

Question: **How will adult and student relationships change in the small learning community?**

Answer: There is a greater opportunity for the teacher to get to know students since the teacher stays with the same group of students over a longer period of time. This extended time might be for a transition year(s) such as a freshman house structure or a 7th and 8th prep experience, a two- or four-year house structure, or a two- or four-year career academy structure. The extended time might also occur as a result of a student advisory program, looping, or simply through the school schedule, which is typically some form of block schedule to allow for longer instructional time.

continued

Teacher Questions and Answers on Small Learning Communities

With the team teaching approach, the team frequently meets to discuss students' strengths and areas needing improvement. This gives teachers an in-depth understanding of the students since the knowledge is gained not only through their own perceptions and findings but also through those of the other members of the teaching team.

Staff relationships center on the small learning community. Since it is self-contained in a separate physical space, adult relationships are somewhat limited to those adults assigned to the small learning community. The team approach provides an excellent means to develop strong professional learning communities since the team grows on the members' expertise and experience. The team's joint responsibility for a certain group of students gives opportunity for a greater sharing of successful practices and action research.

Question: **Who will administer the small learning community?**

Answer: A principal, director, or coordinator usually provides the overall leadership to a small learning community. However, the small learning community is typically managed through a site-based managerial team. This team consists of all the interested stakeholders and, through shared decision making, exercises control, to the degree possible, over space, schedule, curriculum, instruction, finances, and personnel. Some aspects of these areas, however, may still be controlled by the administration of the school district or building in which the small learning community is housed.

Question: **How will success be measured?**

Answer: Students will be held accountable to demonstrate proficiency in state standards; thus, success will be measured by their results on state assessments. Other factors such as attendance, dropout rates, student engagement and motivation, teacher attendance, and placement data will be considered.

Sample

**Teacher Application
for
Academies/Small Learning Communities**

Name _____

Certification Area(s) _____

Current Teaching Assignment _____

Years of Teaching Experience _____

Prior Teaching Assignment(s)/Courses Taught _____
_____
_____

Other Related Talents/Interests/Experiences _____
_____
_____

Academy Preference:

    1. _____
    2. _____
    3. _____

Why Should You Be Assigned to Your First Choice? _____
_____
_____
_____

Other Information You Think Important to be Considered:
_____
_____
_____

Indicators of High-quality Professional Development

	Goal Setting	Needs Analysis	Program Creation	Implementation	Climate/Culture	Evaluation
Exemplary	Clear goals and expected results for schools/teachers; teachers directly tied to attainment of student results; goals understood by all.	Meaningful participation of all stakeholders in identifying needs and development of long-range professional development plans.	Uses a variety of strategies, delivery systems, models, and techniques to meet the needs of staff over a period of time; includes content and best practices based on research.	Continuous follow-up; opportunities for staff to practice skills; ongoing coaching; strong evidence of administrative support to continue with follow-up activities.	Administrators are instructional leaders; mutual respect and collaboration at all levels; professional development recognized as an essential part of change.	Ongoing data collection and analysis linked to student results; outcomes consistent with plan; data results drive ongoing planning cycle.
Effective	Goals exist but are either broad or diverse; generally related to student achievement; limited communication of goals across staff	Some participation by stakeholders; plan is developed but not tied to goals; needs are assumed but not individually identified by staff.	Limited but generally effective programs based on research and school needs but not linked to student results or individual needs.	Follow-up activities are encouraged, primarily at the group level, with some administrative involvement	Professional development is valued as a powerful change agent but top-level leadership is not apparent.	Student outcomes are evaluated but not in relation to interventions provided through professional development plan.
Wishful Thinking	Goals identified but not shared or not based on student achievement needs.	Process owned and controlled by one person; research or regulation driven with no relation to school or individual needs.	Menu approach to selection. professional development program; programs offered by tradition.	Occasional informal follow-up; administrative support may occur but without structure to facilitate.	Professional development tolerated but not consistently available to staff; individual initiative and risk-taking discouraged.	Any evaluations based solely on participant reaction to session (e.g., happiness scales).
Inadequate	No obvious relationship of professional development to district needs or improvement needed.	Superficial or no plan developed; no input of stakeholders; topics selected as separate events.	Single presentation or workshops, often to fill an available time slot; one-shot programs.	No follow-up provided; very limited opportunity to monitor and refine skills; any follow-up is self-driven.	Professional development not encouraged, mandatory participation of unwilling audience.	No evaluation conducted.

Personal Growth Plan

*The following reflective questions will guide you through the key aspects of developing
a personal professional development plan.*

Student Achievement

Goals — What will students achieve differently as a result of your professional development?

Documentation — What sources of data will you use to measure student achievement goals?
❏ Student Performance Test ❏ Student Portfolio ❏ State Test ❏ Local Test ❏ AP Test ❏ Student Projects
❏ Student Interview ❏ Job/College Placement ❏ Other _____

Personal Needs Assessment

Source — What sources of information will you use to identify needs to be addressed in this plan?
❏ Personal Observation ❏ Student Performance ❏ Student Achievement Data ❏ Student Feedback
❏ Administrator Observation ❏ Peer Observation ❏ Self-reflection ❏ New Responsibility
❏ Other _____

Type — On what type of knowledge or skill will this plan focus?
❏ Classroom Management ❏ Content Knowledge ❏ Instructional Strategies ❏ Development of Assessments
❏ More Rigor/Relevance ❏ Use of Technology ❏ School Safety ❏ Analyzing Student Data ❏ Standards
❏ Character Education ❏ School to Career ❏ Other _____

Description — What aspects of teaching and learning do you wish to improve?

Creating Small Learning Communities

Personal Growth Plan (continued)

Professional Development Goals

Goals — What are your goals for professional development? Be specific. Include a time line.

Professional Development Activities

Methods — Which methods will you use to achieve professional development?
❏ Workshop ❏ University Course ❏ Distance Learning ❏ Self -Study ❏ Study Group ❏ Experimentation
❏ Action Research ❏ Partnership ❏ Immersion ❏ Coaching/Mentoring ❏ Other_____

Activities — What professional development activities will you complete? Include a time line.

Personal Growth Plan (continued)

To Be Completed after Professional Development

Professional Development Reflection

Activities — What did you personally accomplish in your professional development?

Evaluation — What are the positive impacts of this professional development?

What would you do differently?

Follow-up — What changes will you make in instruction? What are the expected changes in student learning?

Answering the Question:
Why Business Involvement?

To continue to run a business successfully, employers will need employees who are team-oriented problem solvers, are articulate, possess functional writing skills, understand human nature, and are fully versed in applied technology. With this range of skills, employees will perform at the level necessary to keep a business competitive. In educational terms, this means that adults must be lifelong learners. It is our responsibility to show students that education only begins in school. The presence of business emphasizes how real that aspect of lifelong learning is.

Business leaders know that if they aren't learning something new all the time and applying that knowledge to their business daily, someone else will. The enormous technological expansion that the world is experiencing means that innovation is necessary to give the United States the ability to compete.

The outcome of high-quality education is a workforce that can provide better services and products for the consumers both in the community and beyond. Today, the academic skills and knowledge required of entry-level employees are often at a higher level than those required for college.

Business leaders have a unique position in the community. They are looked up to because of their financial success, and this gives them an opportunity to influence people. This influence will help young people become better prepared for their first steps into a career.

Businesses often relocate to find a more suitable workforce. A world-class workforce in any community strengthens the economy of that community by providing more employment.

Business is supported by the community. It is the responsibility of business to support the endeavors of the community, among which the education of its children is primary.

Planning a Small Learning Community Checklist

This three-step checklist (Getting Ready, Getting Started, and Getting It Done) can guide the planning for a small learning community. Items with an asterisk * apply only to career academies.

GETTING READY	Target Date	Initiated	Completed	Notes
Local Leadership				
Form steering committee				
Develop plan and implementation timeline				
Community Needs Assessment				
Identify area employers*				
Develop employment projections*				
Student/parent interest surveys				
Stakeholders				
Meet w/ colleges and universities				
Meet w/ business leaders				
Meet w/ community leaders				
Meet w/ employers*				
Meet w/ parents				
Meet w/ sending schools leaders				
Best Practices				
Identify national resource networks				
Identify and visit other schools				
Plan				
Develop vision and design				
Identify student education needs and set goals				
Determine evaluation criteria				
Select theme*				
Design course of study*				
Determine type of schedule				
Determine enrollment targets				
Determine school location and facilities				
Determine staffing				
Funding				
Identify local funds				
Identify grant sources				
Apply for planning grants				

Creating Small Learning Communities

GETTING STARTED	Target Date	Initiated	Completed	Notes
Advisory Board				
Develop roles and responsibilities*				
Arrange for appointment*				
Select members*				
Hold initial meeting*				
Review district procedures and policies related to donations, internships, partnerships and safety*				
Curriculum				
Establish course titles and descriptions				
Develop and adapt curriculum frameworks				
Develop academy four year sequences*				
Determine model for interdisciplinary instruction*				
Develop student career interest Surveys*				
Develop student assessments				
Train teachers in instructional model				
Determine data available to teachers for instructional planning				
Develop articulation agreements with local post-secondary institutions*				
Facilities and Equipment				
Develop equipment and material lists				
Order textbooks, software and instructional materials				
Students				
Develop master schedule				
Determine extracurricular activities				
Secure student organization charters and memberships*				
Plan student support services and academic intervention				
Develop on-the job training sites*				
Staffing				
Hire school leaders/assistant principals				
Hire/assign teachers				
Develop professional development plan				
Develop leadership and governance structure				
Develop leadership teams and roles				
Identify teacher professional development opportunities				

GETTING IT DONE	Target Date	Initiated	Completed	Notes
Students				
Develop parent materials				
Recruit students				
Develop intake procedures				
Select and assign students				
Create student schedules				
Develop student handbook, code of conduct				
Set up conflict resolution student procedures				
Stakeholders				
Set up media interviews				
Orient district leadership				
Staff				
Hold team building activities for staff				
Set up instructional supervision procedures				
Administrative				
Develop academy budget				
Set up accountability procedures for leadership teams				
Develop facilities use plan				
Develop annual calendar of events				
Set up safety and facility use procedures				
Collect evaluation data				

Chapter 3

RIGOR/RELEVANCE FRAMEWORK

Evaluation	**6**	
Synthesis	**5**	
Analysis	**4**	
Application	**3**	
Comprehension	**2**	
Knowledge/ Awareness	**1**	

K N O W L E D G E   **T A X O N O M Y**

C Assimilation   **D** Adaptation

A Acquisition   **B** Application

1	**2**	**3**	**4**	**5**
Knowledge in one discipline	Apply in discipline	Apply across disciplines	Apply to real-world predictable situations	Apply to real-world unpredictable situations
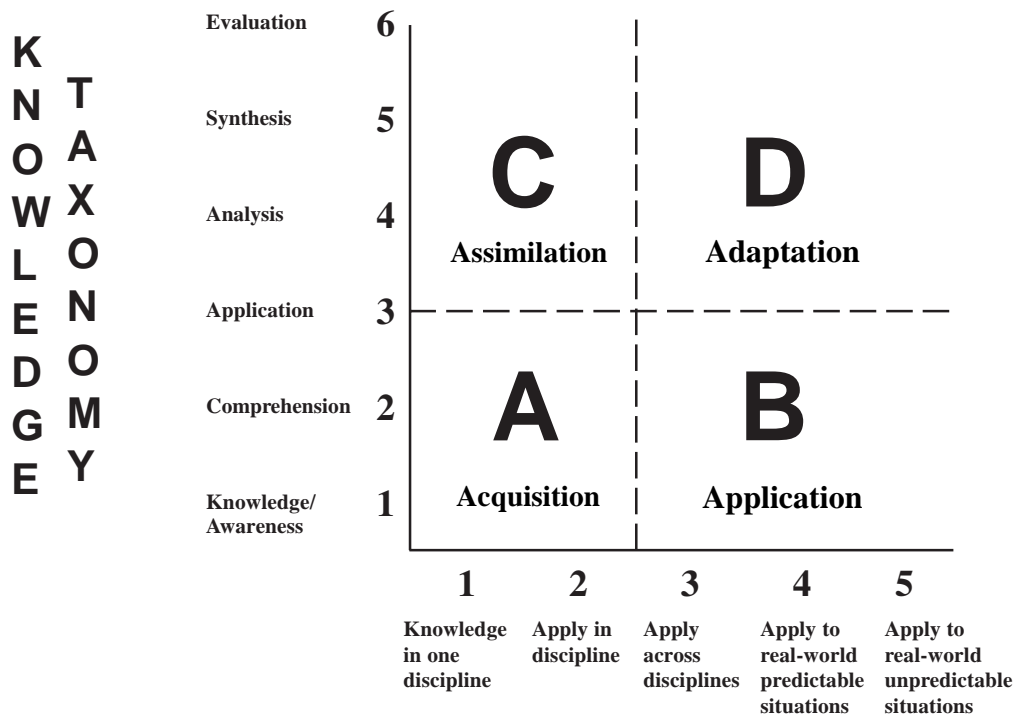
APPLICATION MODEL

Knowledge Taxonomy Verb List

1
Knowledge

arrange	match
check	name
choose	point to
find	recall
group	recite
identify	repeat
label	say
list	select
locate	write

2
Comprehension

advance	interpret
calculate	outline
change	project
contemplate	propose
convert	reword
define	submit
explain	transform
extrapolate	translate
infer	vary

3
Application

adopt	manipulate
capitalize on	mobilize
consume	operate
devote	put to use
employ	relate
exercise	solve
handle	start
maintain	take up
make use of	utilize

4
Analysis

assay	include
audit	inspect
break down	look at
canvass	scrutinize
check out	sift
deduce	study
dissect	survey
divide	test for
examine	uncover

5
Synthesis

blend	develop
build	evolve
cause	form
combine	generate
compile	make up
compose	originate
conceive	produce
construct	reorder
create	structure

6
Evaluation

accept	grade
appraise	judge
arbitrate	prioritize
assess	rank
award	rate
classify	reject
criticize	rule on
decide	settle
determine	weigh

Application Model Decision Tree

Step One

Directions: Select a task, application, or activity and then answer the following questions. See the following page for clarification of the questions.
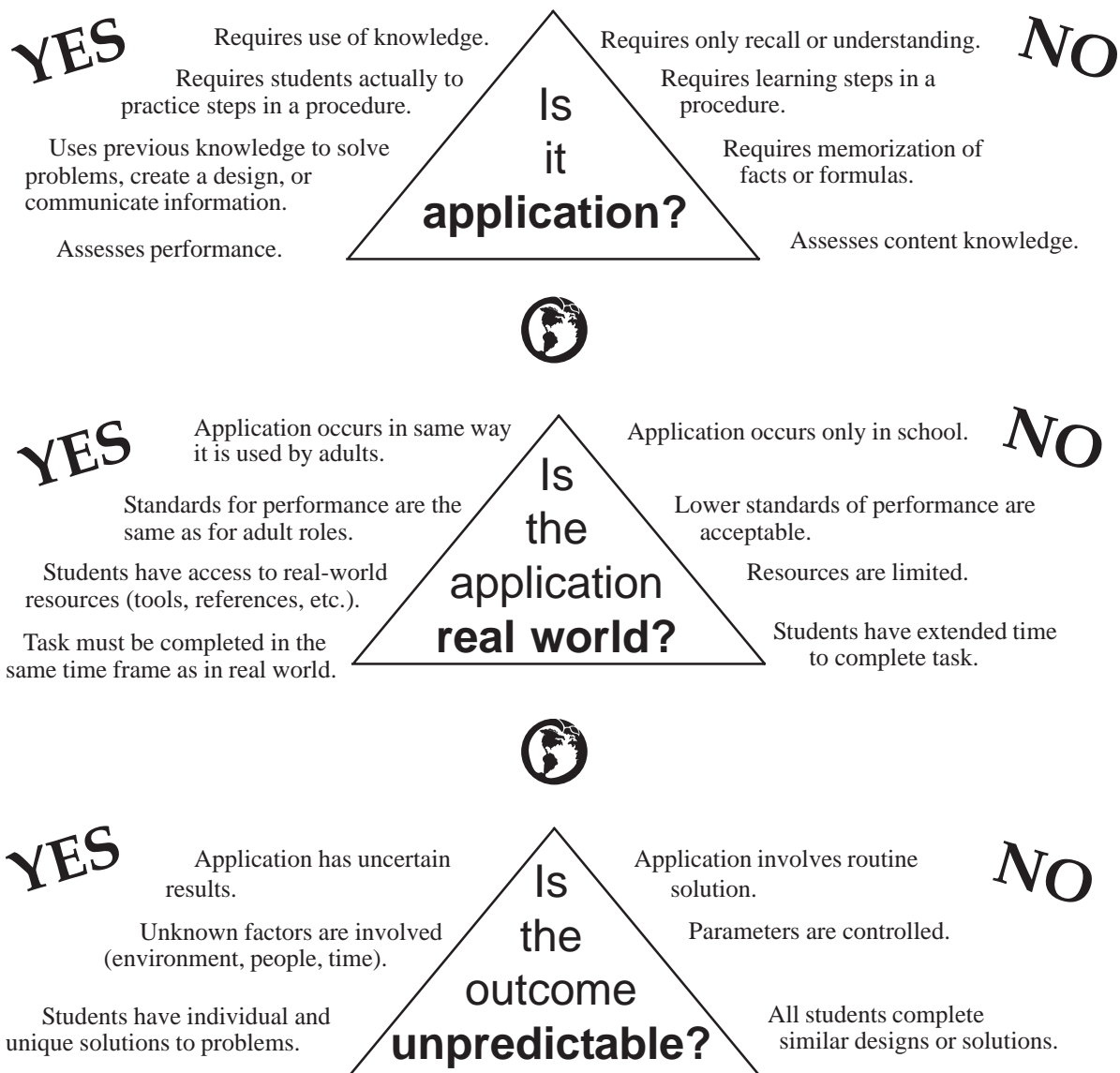
```
        ╱╲
       ╱  ╲        Is
      ╱    ╲       it          ──── NO ────▶     Level 1
     ╱      ╲   application?                     Knowledge in
    ╱────────╲                                   one discipline
         │
        YES
         │
         ▼
        ╱╲                  ┌──────────┐
       ╱  ╲     –NO ──▶     │Is more than│   –NO ──▶    Level 2
      ╱    ╲    Is the      │ one school │              Application in
     ╱      ╲ application   │  subject   │              one discipline
    ╱────────╲ real world?  │ involved?  │
                            └──────────┘
         │                       │
        YES                      ▼
         │                      YES  ────▶    Level 3
         ▼                                    Interdisciplinary
        ╱╲                                    application
       ╱  ╲
      ╱    ╲    Is the      ──── NO ────▶     Level 4
     ╱      ╲   outcome                       Real-world
    ╱────────╲unpredictable?                  predictable
                                              application
         │
        YES  ──────────────────────────▶     Level 5
                                              Real-world
                                              unpredictable
                                              application
```

Application Model Decision Tree

Step Two

Directions: Use the following statements to clarify where a task, application, or assessment belongs on the Application Model Decision Tree.

YES

Requires use of knowledge.

Requires students actually to practice steps in a procedure.

Uses previous knowledge to solve problems, create a design, or communicate information.

Assesses performance.

Is it **application?**

NO

Requires only recall or understanding.

Requires learning steps in a procedure.

Requires memorization of facts or formulas.

Assesses content knowledge.

YES

Application occurs in same way it is used by adults.

Standards for performance are the same as for adult roles.

Students have access to real-world resources (tools, references, etc.).

Task must be completed in the same time frame as in real world.

Is the application **real world?**

NO

Application occurs only in school.

Lower standards of performance are acceptable.

Resources are limited.

Students have extended time to complete task.

YES

Application has uncertain results.

Unknown factors are involved (environment, people, time).

Students have individual and unique solutions to problems.

Is the outcome **unpredictable?**

NO

Application involves routine solution.

Parameters are controlled.

All students complete similar designs or solutions.

Rigor/Relevance Framework Worksheet

KNOWLEDGE TAXONOMY

Evaluation **6**

Synthesis **5**

Analysis **4**

Application **3**

Comprehension **2**

Knowledge/ Awareness **1**

C Assimilation

D Adaptation

A Acquisition

B Application

1   **2**   **3**   **4**   **5**

| Knowledge in one discipline | Apply in discipline | Apply across disciplines | Apply to real-world predictable situations | Apply to real-world unpredictable situations |

APPLICATION MODEL

_

*Creating Small Learning Communities*

Rigor/Relevance Lesson Planning

Before Doing Activity

Yes   No

❏   ❏   Expected levels of rigor and relevance were decided on early in the planning process.

❏   ❏   Student work was clearly identified and designated as to the level of rigor and relevance.

❏   ❏   The assessments are consistent with the level of rigor and relevance and the type of student work.

❏   ❏   The student performance is linked to appropriate state standards.

❏   ❏   Student data on reading levels was considered in setting expected performance.

❏   ❏   The knowledge and experience levels of students were considered in setting expected performance.

❏   ❏   Only content required to complete the student work is included.

❏   ❏   Big ideas and essential questions are clearly identified.

❏   ❏   The activities selected are consistent with the levels of rigor and relevance.

After Doing the Activity

Yes   No

❏   ❏   This lesson included appropriate levels of rigor and relevance.

❏   ❏   Students knew in advance of doing the work what the assessment criteria were.

❏   ❏   The needs of individual students were accommodated in planning instruction and assessment.

❏   ❏   The teacher tried something new to extend his or her instructional skills.

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Rigor/Relevance Lesson Template

Step 1. Focus

What is the focus of the instructional unit (discipline(s), topic, area, theme, setting, or time)?

Step 2. Student Performance

2.1 **Competencies** -What are students expected to understand, know, do and/or be like at the completion of this instruction?

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2.2 **Student Work** - What work will you expect of students and use to measure their performance and demonstration of competence? At what levels is this performance on the Rigor/Relevance Framework?

Student Performance	Knowledge Level	Application Level	R/R Quadrant

2.3 **Standards -** What are the related standards and instructional priorities?

Step 3. Assessment

What types of assessment will be used?

☐ Multiple Choice   ☐ Product Performance
☐ Constructed Response   ☐ Portfolio
☐ Extended Response   ☐ Interview
☐ Process Performance   ☐ Self-reflection

Describe or attach copies of assessment.

Step 4. Learning Experiences

4.1   Content - What content will students need?

4.2   Big Ideas - What key questions will trigger student interest and/or what concepts are important to develop?

4.3   Assessment and Instruction - What assessment and instructional activities, methods, and strategies will be effective in helping students meet the competencies?

4.4   Resources - What student and teachers resources will be needed to carry out the learning experience?

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Rigor/Relevance Lesson Example

Step 1. Focus

What is the focus of the instructional unit (discipline(s), topic, area, theme, setting, or time)?

> *Mathematics – Grade 8*
> *Construction of scale models*
> *Applied activity to reinforce proportions*
> *Incorporate English Language Arts skills*

Step 2. Student Performance

2.1 **Competencies** -What are students expected to understand, know, do, and/or be like at the completion of this instruction?

- *Proportion*
- *Concept of similarity*
- *Create and calculations of scales*
- *Construction of models following design*

2.2 **Student Work** - What work will you expect of students and use to measure their performance and demonstration of competence? At what levels is this performance on the Rigor/Relevance Framework?

Competency	Knowledge Level	Application Level	R/R Quadrant
Make accurate measurements	3	4	B
Estimate scale model size and proportion	3	4	B
Construct scale model	3	2	A
Write up experiences of constructing model	4	2	C
Understand appropriate scale	4	2	C

2.3 **Standards -** What are the related standards and instructional priorities?

Mathematics Standard
Standard 3 - Number and Numeration (Intermediate)
• use numbers in a variety of equivalent forms (integer, fraction, decimal, percent, exponential, expanded and scientific notation).
• understand and apply ratios, proportions, and percents through a wide variety of hands-on explorations.

Operations
• add, subtract, multiply, and divide fractions, decimals, and integers.
• apply concepts of ratios and proportions to solve problems.

Modeling
• visualize, represent, and transform two- and three-dimensional shapes.
• use maps and scale drawings to represent real objects or places.

Measurement
• estimate, make, and use measurements in real-world situations.
• select appropriate standard and nonstandard measurement units and tools to measure to a desired degree of accuracy.

English Language Arts Standards
Standard 1 - Listening and Reading for Information (Intermediate)
• integrate and analyze information from charts, diagrams, etc.
• relate new information to prior knowledge and experience.

Step 3. Assessment

What types of assessment will be used?

☐ Multiple Choice ☑ Product Performance
☐ Constructed Response ☐ Portfolio
☐ Extended Response ☐ Interview
☑ Process Performance ☐ Self-reflection

Describe or attach copies of assessment.

Students submit scale models made from various materials, a sheet of measurements and mathematical computations, and a written Project Report form with photograph attached. Each will be graded with a rubric.

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Step 4. Learning Experiences

4.1   Content - What content will students need?

- numbers in a variety of forms (integer, fraction, decimal, percent) ratios, proportions
- visualize, represent, and transform two- and three-dimensional shapes
- scale drawings to represent real objects
- measurements
- apply formulas in direct measurement activities

4.2   Big Ideas - What key questions will trigger student interest and/or what concepts are important to develop?

- How would you construct a very large scale model? (key question)
- How would you construct a small scale model? (key question)
- Selecting proper scale for model/job (big idea)

4.3   Assessment and Instruction - What assessment and instructional activities, methods, and strategies will be effective in helping students meet the competencies?

- Review concepts of proportion
- Demonstrate constructing a scale model box
- Assign student projects to create a scale model, including write-up and reflection
- Use scoring guide to assess projects and write-ups

4.4   Resources - What student and teachers resources will be needed to carry out the learning experience?

- Constructed model for demonstration
- Cardboard stock for construction of models
- Rulers, Exacto knives, straight edge, drawing materials

Rigor-Relevance Learning Model

What

How

How Well

Student Learning

Expected Student Performance
Rigor/Relvance

Instruction

Assessment

Student Learning

Actual Student Performance
Rigor/Relevance

Reflection and Improvement

Planning Steps for
Rigorous and Relevant Instruction

Step 1	Step 2	Step 3	Step 4
Focus of Learning	Student Performance Rigor/Relevance	Assessment	Learning Experiences

Data

Standards

Student

Best Practices

Reading

Alignment with Performance

Alignment with Assessment

Data-driven Curriculum Checklist

This checklist will help teachers to make curriculum decisions based on objective data related to standards, students, best practices, and reading.

Yes **No**

Standards

❏ ❏ Instruction is based on state standards.

❏ ❏ Instruction is based on high priority standards using Curriculum Matrix data.

❏ ❏ Students and parents are informed at the beginning of the year that the state standards are included in your course.

❏ ❏ Integration of academic standards into arts or career and technical education is focused on standards that are high priority and highly connection to the curriculum.

Students

❏ ❏ Student existing knowledge and skills levels have been determined.

❏ ❏ Student learning styles have been determined.

❏ ❏ You ask students about their interests and aspirations.

❏ ❏ You make home visits to meet parents and understand students' family situations.

❏ ❏ Instruction is differentiated to adjust to individual student differences in prior experience and learning style.

Best Practices

❏ ❏ Teaching strategies have been researched and evaluated to determine effectiveness.

❏ ❏ You analyze the effectiveness of your innovative practices through action research.

❏ ❏ You observe other teachers in your subject or grade.

❏ ❏ You observe teaching strategies in different settings, e.g., watching a special education teacher for ideas on classroom management or a technical teacher conducting a problem-based learning activity.

Reading

❏ ❏ Reading levels necessary for competence on state tests have been determined.

❏ ❏ Reading levels of students have been determined.

❏ ❏ You know the reading levels required for students' career goals.

Characteristics of Standards Alignment Checklist

Output	Always	Most of the Time	Some of the Time	Never	Characteristics	Process
School culture That Emphasizes Standards					Standards are part of the conversation of student achievement.	**Developing an Understanding of Standards**
					Accountability systems are based on standards.	
					Data is collected to measure achievement of standards.	
					Recognition and celebrations are designed around standards.	
Local priority Skills and Knowledge					Teachers have a short list of priorities for instruction.	**Analyzing Community Needs**
					Priority needs of the community are known to all.	
					Key areas of state/standardized assessments are known to staff.	**Analyzing State Tests**
					Teachers have identified how their instructional areas relate to these priorities.	
Local Curriculum Frameworks					District has local curriculum standards and student competencies.	**Developing Local Standards**
					Local curriculum is linked to state standards.	
					Teachers have access to and use these curriculum resources.	
Curriculum Maps					Curriculum topics are sequenced, assigned to a grade level and time of the year.	**Curriculum Mapping**
					Teachers have had input in the development of curriculum maps.	
					Teachers have access to and use curriculum maps.	
					Teachers have linked lesson plans to these curriculum maps.	

continued

Output	Always	Most of the Time	Some of the Time	Never	Characteristics	Process
Crosswalks Between Career and Technical Education (CTE), the Arts, and Academic Areas					CTE/arts courses have been analyzed to identify content that supports academic standards.	**Connecting Academic Areas with Career and Technical Education and Arts Education**
					CTE/arts teachers have a priority to reinforce academic standards.	
					There are frequent conversations between CTE/arts and academic teachers to share instructional ideas.	
					Applied academic courses are developed and offered.	
					Professional development is provided on integrating academics and CTE and the arts.	
					Team teaching of CTE/arts and academic teachers is practiced in school.	
District/school Improvement Plans					Root causes of obstacles to student achievement have been identified.	**District/School Improvement Planning**
					A comprehensive plan sets the priority for use of funds, instructional improvement, teacher evaluation, and professional development.	
					Professional development and staff evaluation are aligned with priorities.	
Teacher Instructional Plans					A consistent process is used by teachers to develop instructional plans.	**Instructional Planning**
					The instructional planning process is supervised.	
					Instructional plans are shared among teachers.	
					Teachers have access to resources to help develop instructional plans.	

Creating Small Learning Communities

Output	Always	Most of the Time	Some of the Time	Never	Characteristics	Process
Local Assessments					Local assessments are developed consistent with district and school priorities.	**Selecting/ Developing Local Assessments**
					Teachers have input to decisions regarding the selection and use of standardized tests.	
					Teachers have access to resources to develop local assessments.	
					Local assessments and scoring guides are shared among teachers.	
					Local assessments are developed to parallel those used in state assessments.	
					A balance is achieved between recall assessments and performance measures.	
Instructional Improvement Priorities					Each teacher has a personal plan for improvement priorities consistent with district goals and based on student achievement results.	**Analyzing Student Achievement**
Academic Intervention Services					There is a district plan for academic intervention services and processes for referring students and terminating services.	**Analyzing Student Achievement**
					Parents are fully informed of options for students and referrals.	
					Teachers understand the plan and refer students for services.	
Revised Instruction					Teachers facilitate instruction that supports the standards.	**Instructional Improvement**
					Teachers offer a variety of instructional activities and methods.	
					Instruction is motivating to students and they are actively engaged.	
					Teachers exhibit interest in continual improvement.	

This chart is taken from *Aligning Standards, Tests and Essential Skills to Improve Instruction*, published by the International Center for Leadership in Education.
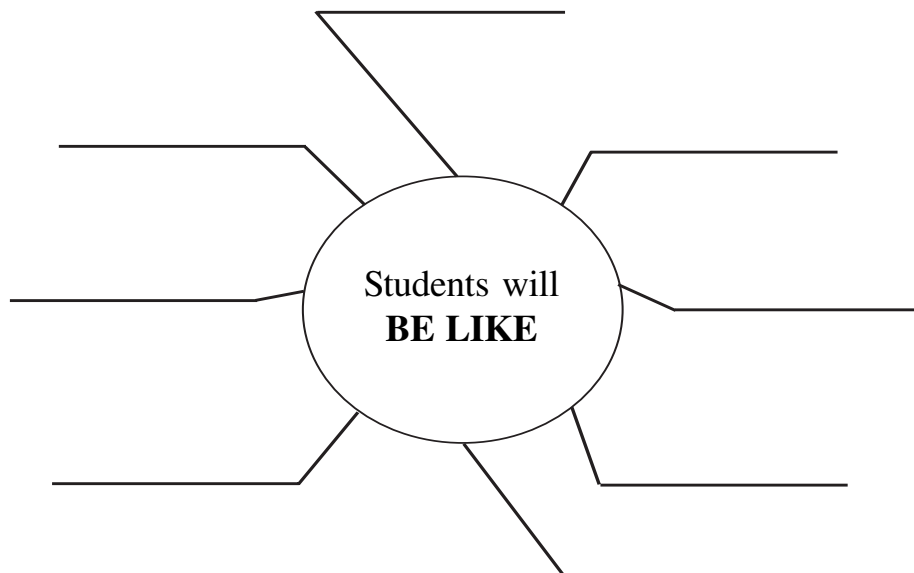
Brainstorming Student Performance

Directions: Think about the student in relation to the focus of the learning.
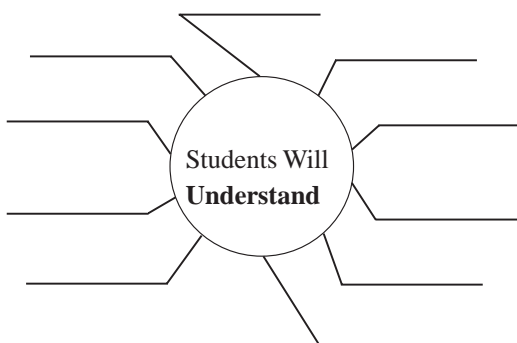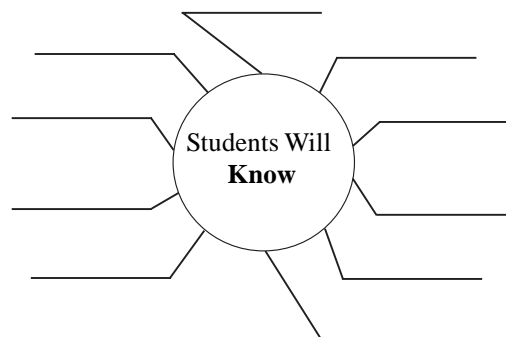Brainstorm what the student will understand.

Unit Focus: _____

Concepts (Big Ideas)
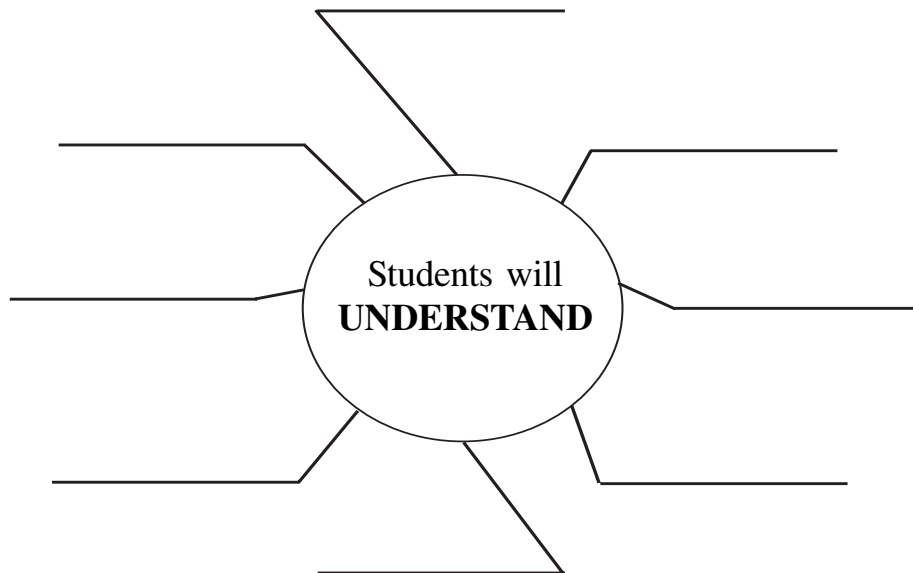
Students will
UNDERSTAND

Brainstorming Student Performance

Directions: Think about the student in relation to the focus of the learning.
Brainstorm what the student will know.

Unit Focus: _____

Declarative Knowledge
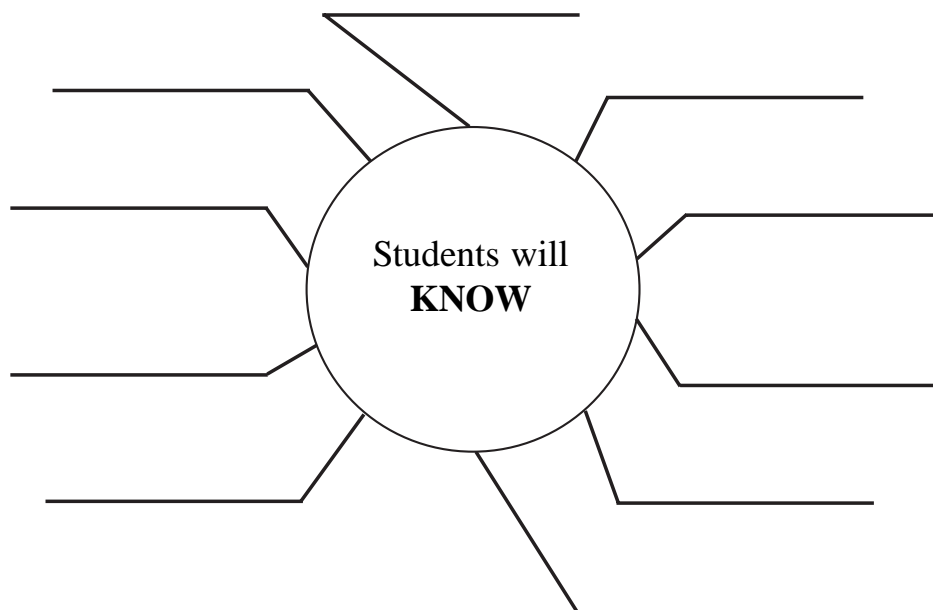
Students will
KNOW

Brainstorming Student Performance

Directions: Think about the student in relation to the focus of the learning.
Brainstorm what the student will do.

Unit Focus: _____

Skills (Thinking and Performing)
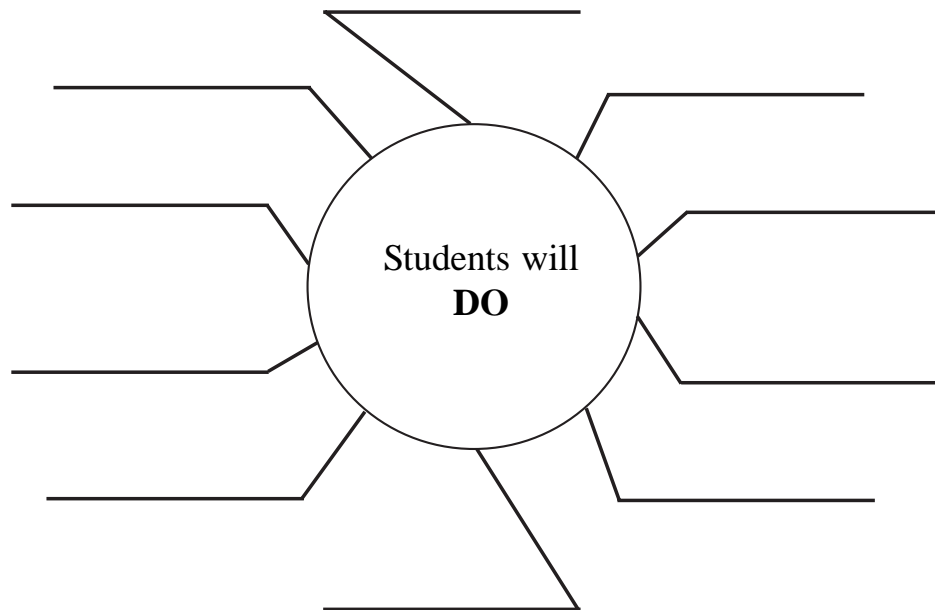
Students will
DO

Brainstorming Student Performance

Directions: Think about the student in relation to the focus of the learning.
Brainstorm what the student will be like.

Unit Focus: _____

Behaviors (Work Habits)

Students will
BE LIKE

Summary of Student Performance

Unit Focus: _____

Concepts (Big Ideas)

Students Will
Understand

Declarative Knowledge

Students Will
Know

Skills (Thinking and Performing)

Students Will
Do

Behaviors (Work Habits)

Students Will
Be Like
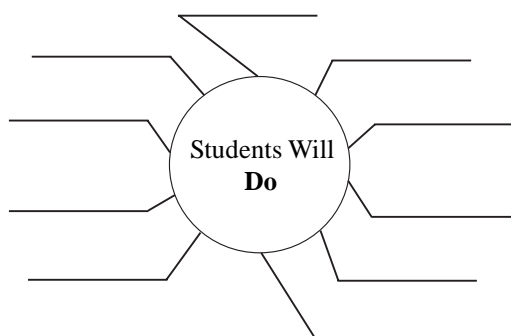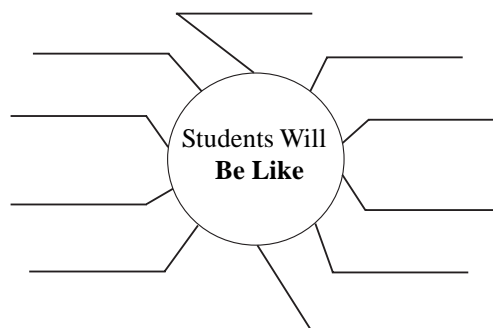
Creating Small Learning Communities

Defining the Rigor/Relevance of Student Work

Directions: After brainstorming student understanding, skills, and knowledge, check any of the following generic examples of student work that *possibly* could relate to the intended learning. Then write a description of the student work that will become the focus of this unit. Be as specific as possible as to what the student will produce.

Examples of Student Work for Real-world Instruction

❏ Advertisement
❏ Audiotape
❏ Brochure
❏ Business
❏ Chart
❏ Community service
❏ Construction
❏ Contract
❏ Correspondence
❏ Debate
❏ Demonstration
❏ Design
❏ Diagram
❏ Discussion
❏ Display
❏ Dramatization

❏ Drawing
❏ Editorial
❏ Exhibit
❏ Experiment
❏ Field guide
❏ Graph
❏ Interview
❏ Invention
❏ Journal
❏ Letter
❏ Log
❏ Machine
❏ Magazine
❏ Manufacturing process
❏ Map

❏ Memo
❏ Mnemonic
❏ Model
❏ Mural
❏ News report
❏ Newspaper
❏ Oral history
❏ Oral report
❏ Painting
❏ Petition
❏ Photo album
❏ Play
❏ Poster
❏ Production process
❏ Proposal

❏ Questionnaire
❏ Questions
❏ Rap
❏ Relief map
❏ Research report
❏ Resume
❏ Rules
❏ Scale model
❏ Scrapbook
❏ Script
❏ Sculpture
❏ Sketch
❏ Skit
❏ Slide show

❏ Software application
❏ Solution
❏ Song
❏ Speech
❏ Story
❏ Survey
❏ Taxonomy
❏ Teach a lesson
❏ Test
❏ Videotape

Student Work	R/R Framework*

* Indicate which quadrant of the Rigor/Relevance Framework this performance will be in:
  A – Low Rigor/Low Relevance, B – High Relevance, C – High Rigor, D – High Rigor/High Relevance.

Examples of Student Work for Real-world Instruction

- Advertisement
- Audiotape
- Brochure
- Business
- Chart
- Community service
- Construction
- Contract
- Correspondence
- Debate
- Demonstration
- Design
- Diagram
- Discussion
- Display
- Dramatization
- Drawing
- Editorial
- Exhibit
- Experiment
- Field guide
- Graph
- Interview
- Invention
- Journal
- Letter
- Log
- Machine
- Magazine
- Manufacturing process
- Map
- Memo
- Mnemonic
- Model
- Mural

- News report
- Newspaper
- Oral history
- Oral report
- Painting
- Petition
- Photo album
- Play
- Poster
- Production process
- Proposal
- Questionnaire
- Questions
- Rap
- Relief map
- Research report
- Resume
- Rules
- Scale model
- Scrapbook
- Script
- Sculpture
- Sketch
- Skit
- Slide show
- Software application
- Solution
- Song
- Speech
- Story
- Survey
- Taxonomy
- Teach a lesson
- Test
- Videotape

Creating Small Learning Communities

Scoring Guide Worksheet

Step 1. Brainstorming

Directions: Begin the development of a scoring guide by making a list of characteristics of what to look for in the student performance. Consider some characteristics of what students should know, do, and be like. Use qualitative adjectives to describe things you can observe.

Student Performance _____

Step 2. Organize Criteria

Directions: Group similar characteristics from the brainstorming step into categories, and give each grouping a name. The name will be the criterion for evaluation.

Similar Characteristics	Similar Characteristics
Criterion_____	Criterion_____

Similar Characteristics	Similar Characteristics
Criterion_____	Criterion_____

Step 3. Develop Levels of Criterion

Directions: For each criterion from Step 2, write a description of four levels of student performance. Start with the highest level, and then do the lowest level. After agreeing on the top and bottom levels, write two intermediate levels.

Criterion _____

Level 4 (Highest)

Level 3

Level 2

Level 1 (Lowest)

Step 4. Develop Scoring Guide

Directions: Copy a criterion from Step 2 in the column at the left. Enter the levels from Step 3 in each cell of the table. Complete all criteria. Review levels and revise for clarity and consistency across levels.

Student Performance _____

Criterion	1(lowest)	2	3	4(highest)

Sample
Checklist Scoring Guide

The following is an example of a checklist scoring guide
to evaluate student performance on a project.

I. **Directions** (25 Points)

In sequential order	_____/5 Points
Clearly understood	_____/5
Neatly typed	_____/5
Graphic illustrations	_____/5
Product described or identified	_____/5

II. **Poster Advertisement** (25 Points)

Lettering neat	_____/5
Message clear	_____/5
Logo and company name clear	_____/5
Artistic use of color	_____/5
Space is well used	_____/5

III. **Business Letter** (25 Points)

Full block style	_____/5
Information clear	_____/5
Grammar clear	_____/5
Signature included	_____/5
Margins and form followed, letter is typed	_____/5

IV. **Video Commercial** (25 Points)

One minute time	_____/5
Message clear	_____/5
Voice easily understood	_____/5
Background appropriate	_____/5
Script sells product	_____/5

TOTAL _____ **/100**

Sample
Holistic Scoring Guide

This scoring guide is used to evaluate student performance in doing a presentation on an issue.

I. SPEAK

Delivery

5 3 1 Eye contact with entire audience
5 3 1 Voice loud and clear
5 3 1 Appeared at ease
5 3 1 Seemed to care about topic

Organization and content

5 3 1 Well-researched
5 3 1 Both main ideas and details present
5 3 1 Material clear and concise
5 3 1 Material includes both pro and con aspects of the issue
5 3 1 Long-term consequences discussed
5 3 1 Creative in use of phrases and words

Language

5 3 1 Very few "uh" "um" "like"
5 3 1 Avoided cliches and using same words repeatedly
5 3 1 Sounded impartial; both sides given equal time and enthusiasm
5 3 1 Arguments persuasive

II. COLLABORATE

Works toward group goals

5 3 1 Does fair share
5 3 1 Initiates change when necessary
5 3 1 Both leads and follows

Communication and interpersonal skills

5 3 1 Both talks and listens as situation requires
5 3 1 Open-minded about other members' views
5 3 1 Attempts to understand all points of view
5 3 1 Able to answer class questions objectively or commit to finding the answer

---

III. PORTFOLIO

Content

5 3 1 Two summaries of articles dealing with issues
5 3 1 Correctly formatted cite for each article on summary page
5 3 1 Notecards for oral presentation
5 3 1 Self-evaluation
5 3 1 Evaluation of other group members

Writing

5 3 1 Word choice
5 3 1 Ideas and content
5 3 1 Conventions
5 3 1 Voice

Sample
Analytic Scoring Guide

This scoring guide is for a letter to the editor.

Criteria	1	2	3	4	Score
Ideas	The letter seemed to be a collection of unrelated sentences. It was very difficult to figure out what the letter was about.	Ideas were somewhat organized, but were not very clear. It took more than one reading to figure out what the letter was about.	Ideas were expressed in a pretty clear manner, but the organization could have been better.	Ideas were expressed in a clear and organized fashion. It was easy to figure out what the letter was about.	1 2 3 4
Letter	Letter is inappropriately informal and confusing to read. No attempt has been made to engage the reader with a logical presentation of facts.	Letters is clear presentation of facts, and/or an appropriately formal writing style.	Letter is logical and clear presentation of facts, and formal writing style.	Letters is logical and clear presentation of facts, and an appropriately formal writing style. Letter is interesting to read and hold reader's attention.	1 2 3 4
Layout	Design is messy and unattractive. Does not make good use of available space. Poor balance of text and graphics.	Design is inconsistent. Some parts are attractive and space efficient, but other parts are not. Inconsistent or poor balance between text and graphics.	Design is mostly attractive and space efficient. Good balance of text and graphics, for the most part.	Design is attractive and space efficient. Excellent balance of text and graphics throughout.	1 2 3 4
Mechanics	Text contains many spelling/grammar errors. Sentences seem disconnected, and there is carelessness throughout.	Text contains some spelling/grammar errors. Little logical structure or flow to sentences. Evidence of carelessness in writing.	Grammar and spelling are nearly flawless. Logical sequence apparent. Some wording is careless. Inconsistent in style.	Grammar and spelling are flawless and the flow provides a logical pathway of ideas. Consistent and engaging style throughout.	1 2 3 4

Sample Writing Rubric for Cross-Curriculum Assessment

6+1 Trait™ Writing
Assessment Scoring Guide

WOW!
Exceeds expectations

⑤ **STRONG:**
shows control and skill in this trait; many strengths present

④ **EFFECTIVE:**
on balance, the strengths outweigh the weaknesses; a small amount of revision is needed

③ **DEVELOPING:**
strengths and need for revision are about equal; about half-way home

② **EMERGING:**
need for revision outweighs strengths; isolated moments hint at what the writer has in mind

① **NOT YET:**
a bare beginning; writer not yet showing any control

- IDEAS
- ORGANIZATION
- VOICE
- WORD CHOICE
- SENTENCE FLUENCY
- CONVENTIONS
- PRESENTATION

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IDEAS AND CONTENT
(Development)

5	*This paper is clear and focused. It holds the reader's attention. Relevant anecdotes and details enrich the central theme.*
	  A. The topic is **narrow** and **manageable.**
	  B. **Relevant, telling, quality details** give the reader important information that goes **beyond the obvious** or predictable.
	  C. Reasonably **accurate details** are present to support the main ideas.
	  D. The writer seems to be writing from **knowledge** or **experience;** the ideas are **fresh** and **original.**
	  E. The reader's questions are **anticipated and answered.**
	  F. **Insight**—an understanding of life and a knack for picking out what is significant—is an indicator of high-level performance, though not required.

3	*The writer is beginning to define the topic, even though development is still basic or general.*
	  A. The **topic is fairly broad**; however, you can see where the writer is headed.
	  B. **Support is attempted**, but doesn't go far enough yet in fleshing out the key issues or story line.
	  C. **Ideas are reasonably clear**, though they may not be detailed, personalized, accurate, or expanded enough to show in-depth understanding or a strong sense of purpose.
	  D. The writer seems to be drawing on knowledge or experience, but **has difficulty going from general observations to specifics**.
	  E. The reader is **left with questions.** More information is needed to "fill in the blanks."
	  F. The **writer generally stays on the topic** but does not develop a clear theme. The writer has not yet focused the topic past the obvious.

1	*As yet, the paper has no clear sense of purpose or central theme. To extract meaning from the text, the reader must make inferences based on sketchy or missing details. The writing reflects more than one of these problems:*
	  A. The writer is **still in search of a topic**, brainstorming, or has not yet decided what the main idea of the piece will be.
	  B. Information is **limited** or **unclear** or the **length is not adequate** for development.
	  C. The idea is a **simple restatement** of the topic or an **answer** to the question with little or no attention to detail.
	  D. The writer has **not begun to define the topic** in a meaningful, personal way.
	  E. **Everything seems as important as everything else**; the reader has a hard time sifting out what is important.
	  F. The text may be **repetitious**, or may read like a collection of **disconnected, random thoughts** with no discernable point**.**

ORGANIZATION

5	*The organization enhances and showcases the central idea or theme. The order, structure, or presentation of information is compelling and moves the reader through the text.* A. An **inviting introduction** draws the reader in; a **satisfying conclusion** leaves the reader with a sense of closure and resolution. B. **Thoughtful transitions** clearly show how ideas connect. C. Details seem to fit where they're placed; **sequencing is logical** and **effective**. D. **Pacing is well controlled**; the writer knows when to slow down and elaborate, and when to pick up the pace and move on. E. The **title,** if desired, is **original** and captures the central theme of the piece. F. Organization **flows so smoothly** the reader hardly thinks about it; the choice of structure matches the **purpose** and **audience**.
3	*The organizational structure is strong enough to move the reader through the text without too much confusion.* A. The paper has a **recognizable introduction and conclusion**. The introduction may not create a strong sense of anticipation; the conclusion may not tie-up all loose ends. B. **Transitions often work well**; at other times, connections between ideas are fuzzy. C. **Sequencing** shows **some logic**, but not under control enough that it consistently supports the ideas. In fact, sometimes it is so predictable and rehearsed that the **structure takes attention away from the content.** D. **Pacing is fairly well controlled,** though the writer sometimes lunges ahead too quickly or spends too much time on details that do not matter. E. A **title (if desired) is present,** although it may be uninspired or an obvious restatement of the prompt or topic. F. The **organization sometimes supports the main point or storyline;** at other times, the reader feels an urge to slip in a transition or move things around.
1	*The writing lacks a clear sense of direction. Ideas, details, or events seem strung together in a loose or random fashion; there is no identifiable internal structure. The writing reflects more than one of these problems:* A. There is **no real lead** to set-up what follows, **no real conclusion** to wrap things up. B. Connections between ideas are **confusing** or not even present. C. **Sequencing needs** lots and lots of **work.** D. **Pacing feels awkward;** the writer slows to a crawl when the reader wants to get on with it, and vice versa. E. **No title is present** (if requested) or, if present, **does not match** well with the content. F. Problems with organization make it **hard for the reader to get a grip.**

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VOICE

5	*The writer speaks directly to the reader in a way that is individual, compelling and engaging. The writer crafts the writing with an awareness and respect for the audience and the purpose for writing.* **A.** The tone of the writing **adds interest** to the message and is **appropriate for the purpose and audience.** **B.** The reader feels a **strong interaction** with the writer, sensing the **person behind the words.** **C.** The writer **takes a risk** by revealing who he or she is consistently throughout the piece. **D.** **Expository or persuasive** writing reflects a **strong commitment** to the topic by showing **why** the **reader needs to know this** and why he or she should care. **E.** **Narrative** writing is **honest, personal, and engaging** and makes you **think about, and react to,** the author's ideas and point of view.
3	*The writer seems sincere but not fully engaged or involved. The result is pleasant or even personable, but not compelling.* **A.** The writer seems aware of an audience but discards personal insights in favor of **obvious generalities.** **B.** The writing communicates in an **earnest, pleasing, yet safe** manner. **C.** Only **one or two moments here or there** intrigue, delight, or move the reader. These places may **emerge strongly for a line or two, but quickly fade away.** **D.** **Expository or persuasive** writing **lacks consistent engagement** with the topic to build credibility. **E.** **Narrative** writing is **reasonably sincere,** but doesn't reflect unique or individual perspective on the topic.
1	*The writer seems indifferent, uninvolved, or distanced from the topic and/or the audience. As a result, the paper reflects more than one of the following problems:* **A.** The writer is **not concerned with the audience**. The writer's style is a **complete mismatch** for the intended reader or the writing is **so short** that little is accomplished beyond introducing the topic. **B.** The writer speaks in a kind of **monotone** that flattens all potential highs or lows of the message. **C.** The writing is **humdrum and "risk-free."** **D.** The writing is **lifeless or mechanical**; depending on the topic, it may be overly technical or jargonistic. **E.** The development of the topic is **so limited** that **no point of view is present**—zip, zero, zilch, nada.

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WORD CHOICE

5	*Words convey the intended message in a precise, interesting, and natural way. The words are powerful and engaging.* A. Words are **specific** and **accurate**. It is easy to understand just what the writer means. B. **Striking words and phrases** often catch the reader's eye and linger in the reader's mind. C. Language and phrasing is **natural**, **effective**, and **appropriate** for the audience. D. **Lively verbs** add energy while **specific nouns** and **modifiers** add depth. E. Choices in language **enhance** the **meaning** and **clarify** understanding. F. **Precision** is obvious. The writer has taken care to put just the right word or phrase in just the right spot.
3	*The language is functional, even if it lacks much energy. It is easy to figure out the writer's meaning on a general level.* A. Words are **adequate and correct in a general sense**, and they support the meaning by not getting in the way. B. Familiar **words and phrases communicate** but rarely capture the reader's imagination. C. **Attempts at colorful language** show a willingness to stretch and grow but sometimes reach beyond the audience (thesaurus overload!). D. Despite a **few successes**, the writing is marked by **passive verbs**, **everyday nouns**, and **mundane modifiers.** E. The words and phrases are **functional** with only **one or two fine moments**. F. The words may be **refined in a couple of places**, but the language looks more like **the first thing that popped into the writer's mind**.
1	*The writer demonstrates a limited vocabulary or has not searched for words to convey specific meaning.* A. Words are so **nonspecific and distracting** that only a **very limited meaning** comes through. B. Problems with language **leave** the **reader wondering**. Many of the **words** just **don't work** in this piece. C. Audience has not been considered. **Language is used incorrectly** making the message secondary to the misfires with the words. D. **Limited vocabulary** and/or **misused parts of speech** seriously impair understanding. E. Words and phrases are so **unimaginative** and **lifeless** that they detract from the meaning. F. **Jargon or clichés** distract or mislead. **Redundancy** may distract the reader.

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SENTENCE FLUENCY

5	*The writing has an easy flow, rhythm, and cadence. Sentences are well built, with strong and varied structure that invites expressive oral reading.*
	    A. Sentences are constructed in a way that underscores and enhances the **meaning**.
	    B. Sentences **vary in length as well as structure.** Fragments, if used, add style. Dialogue, if present, sounds natural.
	    C. **Purposeful** and **varied sentence beginnings** add variety and energy.
	    D. The use of **creative and appropriate connectives** between sentences and thoughts shows how each relates to, and builds upon, the one before it.
	    E. The writing has **cadence;** the writer has thought about the sound of the words as well as the meaning. The first time you read it aloud is a breeze.

3	*The text hums along with a steady beat, but tends to be more pleasant or businesslike than musical, more mechanical than fluid.*
	    A. Although sentences may not seem artfully crafted or musical, **they get the job done in a routine fashion.**
	    B. Sentences are **usually constructed correctly;** they **hang together**; they are **sound**.
	    C. **Sentence beginnings** are not ALL alike; **some variety is attempted.**
	    D. The reader sometimes has to **hunt for clues** (e.g., connecting words and phrases like *however, therefore, naturally, after a while, on the other hand, to be specific, for example, next, first of all, later, but as it turned out, although,* etc.) that show how sentences interrelate.
	    E. **Parts** of the text **invite expressive oral reading**; others may be stiff, awkward, choppy, or gangly.

1	*The reader has to practice quite a bit in order to give this paper a fair interpretive reading. The writing reflects more than one of the following problems:*
	    A. Sentences are **choppy, incomplete, rambling or awkward**; they need work. **Phrasing does not sound natural**. The patterns may create a sing-song rhythm, or a chop-chop cadence that lulls the reader to sleep.
	    B. There is little to **no "sentence sense"** present. Even if this piece was flawlessly edited, the sentences would not hang together.
	    C. Many **sentences begin the same way**—and may follow the same patterns (e.g., *subject-verb-object*) in a monotonous pattern**.**
	    D. **Endless connectives** (*and, and so, but then, because, and then,* etc.) or a **complete lack of connectives** create a massive jumble of language.
	    E. The text **does not invite expressive oral reading.**

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CONVENTIONS

5	*The writer demonstrates a good grasp of standard writing conventions (e.g., spelling, punctuation, capitalization, grammar, usage, paragraphing) and uses conventions effectively to enhance readability. Errors tend to be so few that just minor touch-ups would get this piece ready to publish.* A. **Spelling is generally correct**, even on more difficult words. B. The **punctuation is accurate**, even creative, and guides the reader through the text. C. A thorough understanding and consistent application of **capitalization** skills are present. D. **Grammar and usage are correct** and contribute to clarity and style. E. **Paragraphing tends to be sound** and reinforces the organizational structure. F. The writer **may manipulate conventions** for stylistic effect—and it works! The piece is very close to being **ready to publish.**
3	*GRADES 7 AND UP ONLY: The writing is sufficiently complex to allow the writer to show skill in using a wide range of conventions. For writers at younger ages, the writing shows control over those conventions that are grade/age appropriate. The writer shows reasonable control over a limited range of standard writing conventions. Conventions are sometimes handled well and enhance readability; at other times, errors are distracting and impair readability.* A. **Spelling** is usually **correct or reasonably phonetic on common words,** but more difficult words are problematic. B. **End punctuation is usually correct**; internal punctuation *(commas, apostrophes, semicolons, dashes, colons, parentheses)* is sometimes missing/wrong. C. **Most words are capitalized correctly**; control over more sophisticated capitalization skills may be spotty. D. **Problems with grammar or usage are not serious** enough to distort meaning but may not be correct or accurately applied all of the time. E. **Paragraphing is attempted** but may run together or begin in the wrong places. F. **Moderate editing** (a little of this, a little of that) would be required to polish the text for publication.
1	*Errors in spelling, punctuation, capitalization, usage, and grammar and/or paragraphing repeatedly distract the reader and make the text difficult to read. The writing reflects more than one of these problems:* A. **Spelling errors are frequent,** even on common words. B. **Punctuation** (including terminal punctuation) is often **missing or incorrect**. C. **Capitalization** is **random** and only the easiest rules show awareness of correct use. D. **Errors in grammar or usage are very noticeable,** frequent, and affect meaning. E. **Paragraphing is missing, irregular, or so frequent** (every sentence) that it has no relationship to the organizational structure of the text. F. The reader must **read once to decode**, then again for meaning. **Extensive editing** (virtually every line) would be required to polish the text for publication.

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PRESENTATION
(optional)

5	*The form and presentation of the text enhances the ability for the reader to understand and connect with the message. It is pleasing to the eye.*
	    A. If handwritten (either cursive or printed), the **slant is consistent**, letters are clearly formed, **spacing is uniform** between words, and the text is easy to read.
	    B. If word-processed, there is **appropriate use of fonts and font sizes** which invites the reader into the text.
	    C. The use of **white space** on the page (spacing, margins, etc.) allows the intended audience to easily focus on the text and message without distractions. There is just the right amount of balance of white space and text on the page. The formatting suits the purpose for writing.
	    D. The use of a **title, side heads, page numbering, bullets,** and evidence of correct use of a style sheet (when appropriate) makes it easy for the reader to access the desired information and text. These markers allow the hierarchy of information to be clear to the reader.
	    E. When appropriate to the purpose and audience, there is **effective integration of text and illustrations, charts, graphs, maps, tables, etc.** There is clear alignment between the text and visuals. The visuals support and clarify important information or key points made in the text.

3	*The writer's message is understandable in this format.*
	    A. **Handwriting is readable,** although there may be **discrepancies in letter shape and form, slant, and spacing** that may make some words or passages easier to read than others.
	    B. **Experimentation with fonts and font sizes** is successful in some places, but begins to get fussy and cluttered in others. The **effect is not consistent** throughout the text.
	    C. While margins may be present, **some text may crowd the edges.** Consistent spacing is applied, although a different choice may make text more accessible (e.g., single, double, or triple spacing).
	    D. Although some markers are present (titles, numbering, bullets, side heads, etc.), they are not used to their fullest potential as a guide for the reader to access the greatest meaning from the text.
	    E. An **attempt is made to integrate visuals** and the text although the connections may be limited.

1	*The reader receives a garbled message due to problems relating to the presentation of the text.*
	    A. Because the letters are irregularly slanted, formed inconsistently, or incorrectly, and the spacing is unbalanced or not even present, it is **very difficult to read and understand the text.**
	    B. The writer has gone **wild with multiple fonts and font sizes.** It is a major distraction to the reader.
	    C. The **spacing is random and confusing** to the reader. There may be little or no white space on the page.
	    D. **Lack of markers** (title, page numbering, bullets, side heads, etc.) leave the reader wondering how one section connects to another and why the text is organized in this manner on the page.
	    E. The visuals do not support or further illustrate key ideas presented in the text. They may be **misleading, indecipherable, or too complex** to be understood.

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Readiness for Interdisciplinary Instruction Checklist
*Use this checklist to evaluate your school's readiness
for developing interdisciplinary instruction.*

YES NO

Getting Ready
❏ ❏ Teachers have a short list of priorities for instruction.
❏ ❏ Everyone knows the priority needs of the community.
❏ ❏ Staff members know key areas of state/standardized assessments.
❏ ❏ District has local curriculum standards and student competencies.
❏ ❏ Career and technical education and arts courses have been analyzed to identify content that supports academic standards.
❏ ❏ Career and technical education and arts teachers have a priority to reinforce academic standards.
❏ ❏ Teachers use a consistent process to develop instructional plans.

Getting Started
❏ ❏ Teachers have access to curriculum resources.
❏ ❏ Teachers have access to resources to help develop instructional plans.
❏ ❏ Local assessments are developed consistent with district and school priorities.
❏ ❏ Teachers have access to resources to develop local assessments.
❏ ❏ Teachers offer a variety of instructional activities and methods.

Doing It
❏ ❏ Applied academic courses are developed and offered.
❏ ❏ Professional development is provided on integrating academics and career and technical education and the arts.
❏ ❏ Team teaching of career and technical education/arts and academic teachers is practiced in school.
❏ ❏ A balance is achieved between recall assessments and performance measures.
❏ ❏ Parents are fully informed of options for students and referrals.
❏ ❏ Teachers facilitate instruction that supports the standards.
❏ ❏ Instruction is motivating to students, and they are actively engaged.
❏ ❏ Teachers exhibit interest in continual improvement.
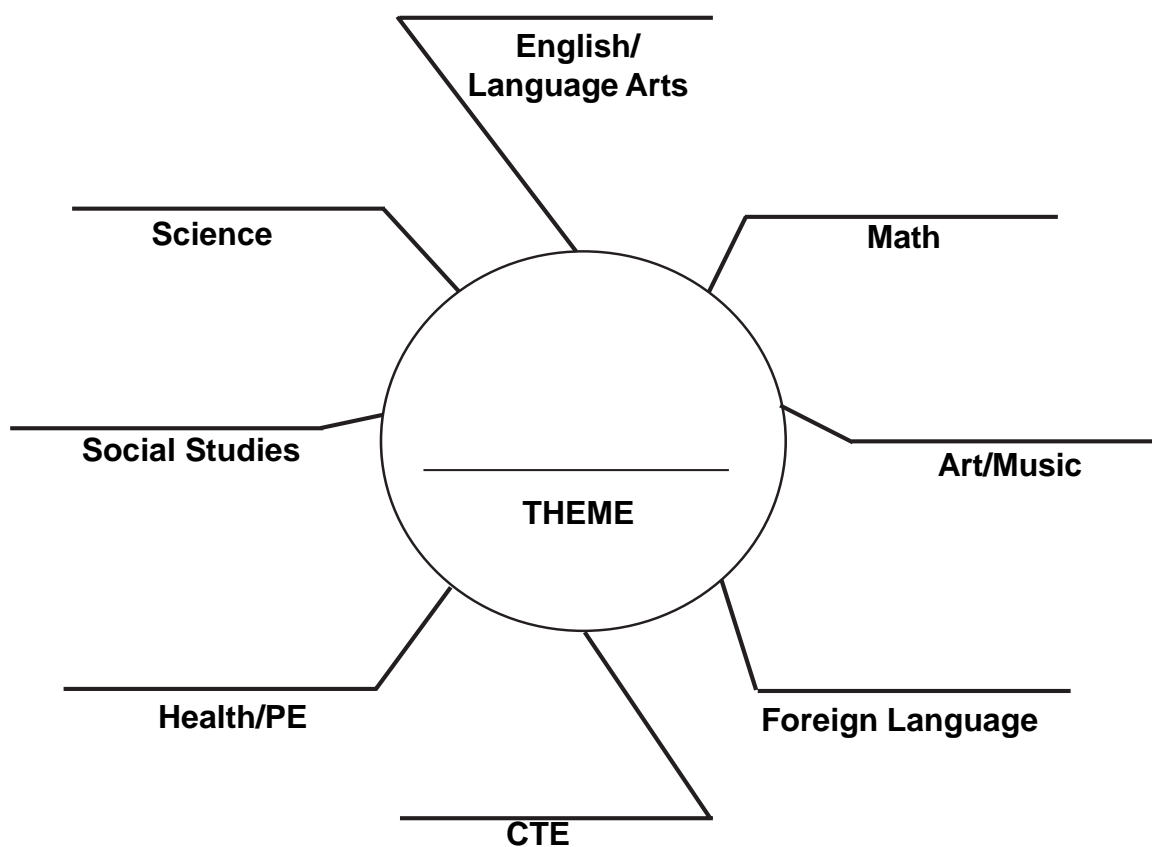
Creating Small Learning Communities

Interdisciplinary Curriculum Worksheet #1

Brainstorming Student Work in Multiple Disciplines

Directions: Working in interdisciplinary groups, brainstorm student work related to the theme in each subject area.

Theme _____ **Date** _____

Group Members _____

English/
Language Arts

Science

Math

Social Studies

_____

Art/Music

THEME

Health/PE

Foreign Language

CTE

Interdisciplinary Curriculum Worksheet #2

Establishing Student Learning

Title: _____

Theme/Focus/Concept	Time Frame:
	Grade Level(s):
	Contact Person(s):

Application Model

	C	**D**
	A	**B**

Evaluation 6
Synthesis 5
Analysis 4
Application 3
Understanding 2
Awareness 1

1 2 3 4 5

1= Knowledge
2= Apply in discipline
3= Apply across disciplines
4= Apply to real world predictable
5= Apply to real world unpredictable

State Standards Addressed

Standard   **Number(s)**
☐ English/Language Arts   _____
☐ Math   _____
☐ Social Studies/History   _____
☐ Science   _____
☐ Second Language   _____
☐ Health   _____
☐ Career & Technology Ed   _____
☐ Humanities/Arts   _____

SCANS Skills Addressed

Basic Skills
☐ Reading
☐ Writing
☐ Mathematics
☐ Listening
☐ Speaking

Thinking Skills
☐ Decision Making
☐ Problem Solving
☐ Creative Thinking
☐ Reasoning
☐ Application of New Knowledge

Personal Qualities
☐ Responsibility
☐ Self Esteem
☐ Sociability
☐ Self Management
☐ Dependability

Special Skills
☐ Computer Literacy
☐ Interpersonal
☐ Safety
☐ Others

Describe the student work. What will be made, created, produced, demonstrated, or designed?

What the students will know (what do you want the students to know and be able to do?)	What prerequisite skills do students need?	What instructional strategy(ies) will you use to facilitate learning?	
		❑ Brainstorming	❑ Project design
		❑ Community service	❑ Recognition and rewards
		❑ Compare and contrast	❑ Research
		❑ Cooperative learning	❑ Review and re-teaching
		❑ Creative arts	❑ Setting objectives and advance organizers
		❑ Demonstration	❑ Simulation/role playing
		❑ Games	❑ Socratic seminar
		❑ Group discussion	❑ Teacher questions
		❑ Guided practice	❑ Total physical response
		❑ Inquiry	❑ Video
		❑ Instructional technology	❑ Work-based learning
		❑ Internship	❑ Writing
		❑ Lecture	
		❑ Literature	
		❑ Memorization	
		❑ Note-taking/ graphic organizers	
		❑ Presentations/exhibitions	
		❑ Problem-based learning	

Assessment ● **How will students show what they have learned? What assessment strategies will be used?**

Activities	Equipment, Materials and Resources	Reflection on the Performance Task(s)
What activities will the student be doing? (In addition to a step-by-step description of classroom activities, be sure to make program accommodations for students with disabilities and incorporate provisions for multi-level students.)	**Equipment** (Check all that apply) **Equipment** ☐ Power Point ☐ Word Processing ☐ Internet ☐ Camcorder ☐ Sound Resources ☐ Digital Camera ☐ Graphics ☐ Scanner ☐ Other **Materials:** **Resources:**	How did the process work? **Date** **Activity** **Reflection:**

Creating Small Learning Communities

Questions and Answers on Block Scheduling

Here are some questions that may be raised by teachers, parents, and students and suggestions for responses.

Question: **How will I teach in a longer class period?**

Answer: Staff will be provided professional development opportunities that will emphasize a variety of instructional strategies. Many methods of instruction, not just lecturing, are effective in extended class periods. Teachers will be encouraged (and compensated where possible) to develop exemplar learning units to share with other staff. Teachers who are already proficient in utilizing a variety of instructional techniques will share their expertise, materials, and resources.

Question: **Why are longer class periods better than the typical 45-minute period?**

Answer: With longer class periods, there is more time for students to spend on learning without interruption and more time for teachers to cover content thoroughly and provide real-world applications of the subject matter. Longer class periods also allow more opportunities for flexible groupings of students and a wider diversity of instructional activities. Longer instructional blocks give teachers more common planning time as well as instructional time. The personalization and teaming characteristics of a small learning community are strengthened with additional time for students and teachers to be together.

Question: **How will students spend their time for that long block? Won't they get bored?**

Answer: Keeping students engaged is key to successful block scheduling. The instructional commitment to rigorous and relevant learning translates into active engagement of the learner. Thus, less lecturing and more real-world applications of learning, a variety of instructional strategies, and more time on task keeps the learner learning.

Question: **Isn't there less instructional time under a block plan? How can the entire curriculum be covered?**

Answer: Basically, the amount of instructional time is not lessened under block scheduling. Administrative functions at the start and end of class periods are reduced with block scheduling. Having fewer courses in a semester cuts the time needed for these functions and provides extended time to devote to instruction. With block scheduling, schools typically align curriculum with standards and expectations

Question: **Won't students forget information needed in subsequent courses with longer segments of time between sequential courses of study?**

Answer: Research demonstrates that retention of information is not a significant problem for students under a block schedule. Content is taught and applied more thoroughly with the longer time in a block schedule. Students remember better what they have had a chance to apply. Where there is a need for catch up, effective review brings the learner back on pace with instruction.

Question: **Aren't student absences problematic? If students are absent for a day, won't they miss twice the amount of class time?**

Answer: Making up work missed from absences is always difficult. Under a block schedule, the class time lost is basically the same as if the student were out for one day under a traditional schedule. With the block schedule, the time lost is in fewer subject areas.

Question: **What happens to elective courses? Is there time in a block schedule for these options?**

Answer: Elective course options are not eliminated or lessened in a block schedule. Actually, more courses may be offered over the course of a year under the block schedule. Elective course offerings can be expanded under block scheduling.

Question: **How do students who transfer from schools with traditional schedules adjust under a block schedule?**

Answer: Transfer students may experience some adjustment; however, procedures are usually developed for these students. Typically, credit conversions are determined.

Question: **What happens to failing students? Do they stay in a class for the full semester knowing that they will not pass the course?**

Answer: As with a traditional schedule, students are required to remain in the class. The opportunity to repeat a course may occur the next semester. Thus, the student does not have to wait an entire school year to start a course over. The extended period also is beneficial to students who are in need of academic intervention services. Under the block, students spend more time with teachers; content is presented in depth; and teachers use a variety of instructional strategies and activities.