MASSILLON

Toward 2025

in the Massillon City Schools

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Stark Education Partnership inc.

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EXECUTIVE SUMMARY

High absolute scores on assessments such as SAT are best predicted by family income, but if we are predicting student growth—progress made over the year—(research has) demonstrated that good instruction is 15 to 20 times more powerful than family background and income, race, gender, and other explanatory variables.

–Theodore Hershberg, *Phi Delta Kappan*, December 2005[1]

Introduction: Toward 2025

Fred Blosser, Superintendent of Massillon City Schools, asked Adrienne O'Neill, Ed.D., President of the Stark Education Partnership, to conduct a study of curriculum, instruction, and professional development in the Massillon City Schools. A white paper was requested that would contain a critical analysis of curriculum, instruction, professional development and student achievement in the Massillon City Schools as well as a suggested dashboard of indicators with short and long term suggested recommendations based upon current research of best practice.

Dr. O'Neill presented a plan to the Massillon City Schools executive committee on November 14, 2006. The plan for the study included an analysis of current factual data, observational analysis based upon visits to the schools and a focus on developing operational projects with appropriate indicators of success. Information was requested and visits to the district and schools were made in November, December, January and February. The complete study was promised for April 2007 and was delivered and presented on March 15, 2007 to the administrative staff and to the Board of Education on March 28, 2007.

More importantly, the analysis of the curriculum, instruction and professional development would be directed toward the year 2025. Why 2025? Currently, most are suggesting that students will need some post-secondary experience to survive in the world of the future. Under the current grade level schema, a student born in 2006 would reach grade 14 (the equivalent of an associate's degree) by 2025.

[1] Panasonic Foundation in cooperation with the American Association of School Administrators and the University Council for Educational Leadership. *Strategies.* (2006). Retrieved December 23, 2006 from: http://aasa.files.cms-plus.com/PDFs/Publications/Strategies/Strategies1206.pdf

Implementation of Short-Term Recommendations

Some of the short term recommendations have been implemented due to the responsiveness of the faculty and administration of the Massillon City Schools. Rather than waiting and submitting a full blown study, drafts of the parts of the study were distributed as they were completed. Recommendations with timelines occurring earlier than April 2007 were made prior to the deadlines. Four examples are significant:

1. The Massillon City School District needs to increase the number of Tech Prep offerings available to high school students. The Tech Prep enrollments in the Massillon City Schools have been stagnant at about 100 students while the Stark County enrollments have been increasing dramatically. Funds for staff and equipment are available through the Perkins' monies distributed through the State Department of Education. This recommendation was made in November so that at least a health services proposal could be submitted to the Stark County Tech Prep Consortium in time for the January 19, 2007 deadline.

2. The written district and school continuous improvement plans were not specifically targeted, rather a general 10% improvement or no specific improvement was included in those plans. Two elementary schools, Smith and Whittier invented a continuous improvement process in the 2006-2007 school year that included targets and specific strategies to move their schools to the highest rating of excellent. The implemented process resembles a Six Sigma Improvement Process, but was not described in the continuous improvement plan. The curriculum director worked with all eight Massillon City Schools Principals and in January a similar process was developed and put into place in all of the schools.

3. The Massillon City Schools need to send more students on to college. In 2003, the latest data reported by the Ohio Board of Regents, Massillon sent 37% of its graduates to college. This percentage is below the Stark County average of 50% and the state average of 44% for the same year. A strategic partnership between Kent State University at Stark and Canton Local piloted in the 2005-2006 school year called *Application Action* was funded for the Massillon City Schools in December 2006 by the Stark Education Partnership. All seniors, except Tech Prep students, with the help of admissions personnel from Kent Stark, will apply to Kent Stark and all applicants and their families will complete a financial aid form in January or February. It is expected that this strategy will raise the college going rate in Massillon during the 2006-2007 school year because students and parents will have an idea of exactly what the cost would be if they attended college and the students will have at least one college acceptance in hand.

   Walsh University in the collaboration under the D.R.E.A.M project will establish a college access center in the new facilities. That center will provide college

access activities for all students, grades 9-12, and all 12th grade students will complete at least three college applications during their senior year.

4. Merit based aid to high school seniors enrolling in college is based upon ACT scores. To help students get higher ACT scores in this school year, in December 2006, the Stark Education Partnership funded the purchase of on-line ACT preparation software for the Massillon City Schools.

And, on February 1, 2006 The Paul and Carol David Foundation presented a gift to the Massillon City Schools that will actualize some of this study's recommendations within a very short period of time.

Becoming the Best in the United States

The Massillon City School District has inherent capacity for being among the best in the United States with regard to student academic achievement. Why? Teachers, staff and administrators have shown a positive attitude and a focus on providing what they believe are the very best opportunities for all students to graduate and thrive in the world of work during even the most difficult of challenges—fiscal and academic emergency. It would have been easier to give up, but giving up is not the ethic in Massillon. Rather, persisting toward success is the rule. Further, the Massillon City Schools have always had a graduation rate that is much higher than the national average for urban school districts. Massillon graduates more than 85% whereas urban districts generally graduate about 68% of their students.

The Massillon City School District is rated as Continuous Improvement, has not met AYP, and is in the third year of improvement. Two elementary schools have reached the status of excellent, the highest rating possible.

The Massillon City Schools have a long history of being in compliance with the requirements issued by the Ohio Department of Education and those issued by the federal government with regard to NCLB. Progress in the district has been measured with regard to those compliance requirements and progress has been made.

Given the evidence provided by districts and schools that have made significant academic progress, the author believes that the Massillon City School District and each of the schools could be better than the numbers now show if compliance was continued but was repurposed and augmented with visioning of the future and participatory and targeted planning.

Compliance is not sufficient as a direction for the school district. Thought must be given to what is going to be required of students who will need to thrive in a future world where individual prosperity will be determined by the individual's ability to find new knowledge, manipulate those findings and create new knowledge, not just master knowledge identified as

vague standards, benchmarks and indicators by the Ohio Department of Education and delivered in the classroom as discrete parts or units of instruction.

School districts that make significant improvements in student achievement have "Big Hairy Audacious Goals" (Collins, 2001) and are clear about how actions regarding curriculum and instruction connect with the mission and vision set out in the Board of Education Policy Manual.

Schools that make significant improvements in student achievement have a mission and vision in sync with the district mission and vision. Each year, staff in these schools examine the student achievement data and adjust curriculum, instruction and professional development to improve the results. When a visitor comes to an improving district or school, teachers, staff members, administrators and often middle and high school students, know and are able to articulate the goals or specific targets of the plan.

In a compliance environment, faculty and students look to the leadership of a state education department to specify content for instruction and to local leadership for rule making that specifies the climate of the schools.

In the educational environment of the future, leaders, faculty and students will take responsibility for creating a learning environment where creativity in the form of manipulating knowledge is valued and where college going is the expected norm for all students. Faculty and students will be technologically proficient and adept at finding and manipulating new knowledge. Sharing and using new knowledge must be the order of the day. Courses of study and methods of delivering those courses of study must change. This is a tall order because the pace of change is so rapid and likely to become much more rapid as time goes on.

Overall Findings

The overall findings of this study are as follows:

- ***Inherent Capacity***: With a determination unique to the Massillon City Schools, and a graduation rate that exceeds the national graduation rate for urban school districts, the Massillon City Schools have an inherent capacity to be one of the best school districts in the nation.
- ***Sense of Urgency***: The Superintendent, Executive Committee, and principals together with faculty need to create a sense of urgency in the Massillon City Schools that seeks to move the schools to excellence on state-wide indicators and to achieve curricular outcomes that reflect a new age.

- ***Mission and Vision***: The mission and vision of the school district are too narrow with a focus on compliance. The mission and vision need to be rethought and restated.
- ***Educational Outcome and Process Goals:*** The Massillon City School District has a long list of Educational Outcome Goals (see Policy 2131 in Appendix II) and Educational Process Goals (see Policy 2132 in Appendix II). Neither the outcome or process goals contain any measures that would enable district personnel to evaluate the success of the district or the schools in meeting these goals. Revising these policies to focus on an overall, measurable goal to realize its inherent capacity to become one of the best school districts in the nation would focus district activity.
- ***Curriculum:*** The curriculum needs to be matched against the revised mission, vision, educational outcomes, and educational process goals. The Massillon City Schools faculty needs to open a dialogue K-12 about the requirements of the curriculum in a new age with new expectations. The Ohio Core legislation needs to be examined in this light and action steps planned. This dialogue needs to be tied to instructional change that includes the integration of technology into the teaching process.
- ***Requirements of the Curriculum in a New Age***: The Massillon City Schools need to complete the process of creating scope and sequence charts, curriculum and where appropriate curriculum matched to standards. Excellent work has been done but it often ends in grade 4 or 5. Grades 6-8 need to be completed and conversations need to begin immediately regarding the creation and implementation of a literacy plan grades 9-12. Joining with several other Stark County School districts to complete this work or to look at the work they have completed would be extremely helpful and is very likely to speed the process.
- ***Administrative Oversight and Implementation of Curriculum and Instruction:*** Administrative oversight and implementation of curriculum and instruction needs to be focused. Currently the Assistant Superintendent has too many direct reports and oversees both curriculum and operations. Further there have been two central office curriculum administrators, one called a Director of Curriculum and one called Director of Federal Programs. Additionally there is a curriculum person at the middle school supervised by the principal, a career-technical director at the high school supervised by the principal, and a Director of Pupil Personnel Services who is responsible for special education. This system is too diffused to arrive at an aligned outcome for all students.
- ***Professional Development:*** Professional development needs to have an articulated, integrated program that includes previously planned district professional development as well as site based professional development determined by principals and staff to meet identified school improvement goals and to implement the expanded mission and vision.

- ***Continuous Improvement:*** Two of the elementary schools, Smith and Whittier, invented a process for continuous improvement planning that is participatory and at the same time accounts for finding and providing supports for raising the achievement of all students. This process, under the direction of the curriculum director, was shared in January and will be replicated in all of the buildings.
- ***Data Dashboards:*** The district and the schools need to create data dashboards that, at a glance, show how the district and the school are doing against targeted goals.
- ***Data Management:*** Data management needs to be improved. A revised data management book (see Data Book Outline in Appendix IV) needs to be created that is solely purposed to provide data to allow the principals and their staffs to drive toward continuous improvement. One major change would be to track student performance from one grade level to the next and allocate resources based upon student need. At the elementary school level, special education and gifted students should be assigned back to the school of origin for the purposes of determining overall school scores. The IRN numbers for Franklin and the Middle School should be changed to reflect that these schools were both reconstituted.
- ***Special Education Placement:*** The special education placement rate (21%) exceeds the national average for urban districts (16%) and needs to decrease. This might be done by adding supplemental supports to the middle school and high school programs.
- ***Elementary Program:*** The elementary program is superb with students excited about learning and leaders and teachers who are making sure that every child exceeds the achievement level that might be expected given the poverty levels at the schools. These schools are on track for success and, best of all, an ever increasing number of students are reading with fluency and are proficient with numeracy skills.
- ***Middle School Program:*** The middle school core content instructional time needs to be increased from 180 minutes to at least 240 minutes. The instructional patterns now in use need to be expanded and enlivened and the administrative arrangement needs to be changed so that the principals and teachers are working in a participatory manner by grade level to drive toward continuous improvement. Further, consideration needs to be given to broadening the academic expectations for all students so that many more are on track for advanced placement and dual credit. A professional development plan needs to be constructed to accomplish all of the above.
- ***High School Program:*** The high school needs to drop the general track and encourage more of the students to reach higher levels of educational achievement through dual credit (tech prep or junior and senior level courses taught by high school teachers for college credit) or advanced placement courses and in so doing, raise the college going rate (two year technical school, apprenticeships, four year schools etc.) Further, the students need to develop a climate where academic attainment is the order of the day and enthusiasm for academic attainment is shared with the community and the parents. A professional development plan needs to be constructed to accomplish all of the above.

Table 1-1: Massillon City Schools Recommended Dashboard

Indicator	2006 Measurement (based upon 2005-2006 data)	Projected 2008 Measurement (based upon 2007-2008 data)
High School Graduation Rate	87.5%	93% (state requirement) +
# of State Report Card Indicators Met	10/25	20/25
# of Schools Excellent	3/8	6/8
ACT		
Numbers of students taking test	140	All
Composite Score	19.5	21.5 (state average 2006)
% of Students College Ready	57% - College English Composition	71% - College English Composition (state average 2006)
	24% - College Algebra	45% - College Algebra (state average 2006)
	41% - College Social Science	56% - College Social Science (state average 2006)
	19% - College Biology	30% - College Biology (state Average 2006)
	12% - Meeting All 4	24% - Meeting All 4 (state Average 2006)
College Going		
High School to College Going Rate in Ohio	37% (2003)	50% (Stark County Average 2003)
% Needing Remediation	57% (2003)	42% (Stark County Average 2003)
% Persistence 1 Year +	83% (2003)	90%
Advanced Placement: # of Courses	7/36	10/36 (Convert French IV, Spanish IV and V, and Computer Programming to AP courses)
Advanced Placement: % of Students taking tests	Less than 100%	100%
Advanced Placement: Average Scores	2.0	3.0 (Minimum score for college credit)
Tech Prep: # of classes in Tech Prep Consortium with articulated college credit	4/22	7/22 (Convert Health, Fitness and Sports Science Electives to Tech Prep; Convert Business and Career Tech Business to Tech Prep)
# of Students self reporting going on to 2 or 4 year college, military or apprenticeships including college courses	?	? +
# of students with earned college credit in High School	Total—29 10 post secondary; 8 Summer Scholars (2005-2006); 11 with AP scores of 3, 4 or 5 (2005-2006)	Total--200 (Increase of scores of 3 and above on AP tests, increase post secondary credits earned and increase dual credits earned through tech prep or other programs)

PREFACE

…when the urgency rate is not pumped enough, the transformation process cannot succeed and the long-term future of the organization is put in jeopardy. When is the urgency rate high enough? From what I have seen, the answer is when about 75% of a company's management is honestly convinced that business as usual is totally unacceptable. Anything less can produce very serious problems later on in the process.

– John P. Kotter (1995, pp. 60-61)[1]

Introduction

The study reflects five of the author's biases:

1. All students can learn at high levels with appropriate supports.
2. Effective leaders work toward continuous improvement directed to accomplish a significant vision and mission.
3. Continuous improvement happens in a participatory climate.
4. Parental involvement and community ownership are best generated in an urban district through student enthusiasm about educational attainment.
5. Change lasts if the students, teachers and principals own the change.

The author thanks Superintendent Blosser for this opportunity and all who provided information and helped with visits to the school district on:

- November 14, 2006 — Washington High School, meeting with Executive Committee and lunch with Superintendent
- December 8, 2006 — Visit to Washington High School
- December 9, 2006 — Washington High School and lunch with Executive Committee
- December 11, 2006 — Lunch with Curriculum Director
- January 9, 2007 — Visit to Smith Elementary
- January 11, 2007 — Visit to Gorrell Elementary
- January 12, 2007 — Visit to Bowers & Whittier Elementary

[1] Kotter, J.P. (1995). Leading change: Why transformation efforts fail. *Harvard Business Review*.

- January 17, 2007 Visit to Emerson & Franklin Elementary
- February 7, 2007 Visit to Massillon Middle School
- February 12, 2007 Meetings on special education and federal programs
- February 13, 2007 Draft presentation to Executive Committee

Limitations of the Study

1. The timeframe of the study—mid November 2006 to mid February 2007 was too short to provide an exhaustive review of the literature. Most of the research included is a look at what is new, not a review of what existed before what is new was added. As recommendations from this study are implemented, it may well be necessary to add to the research base provided herein.

2. Visits to the schools were limited to one day or one half day and the observations contained in the study need to be understood as only a snapshot of what occurs in the schools.

3. The state of the data in the district in some cases precluded the formulation of absolute recommendations. Thus, some of the recommendations are hypotheses that need to be tested with further analysis.

4. The study does not look at discipline or the recommendation in the District Data Book, 2006 that a behavioral management system be adopted for the school district.

For Further Study

Further study is needed. For example:

1. A review of special education placements needs to be done to confirm or disaffirm the hypothesis stated in the study that the special education placements could be reduced if additional supports were in place at the middle and high schools. The review would include a current snapshot of all students currently placed in special education by category and grade level and year of original placement.

2. A literacy plan is recommended for grades 5-12 because it is generally true in urban districts that students do not read well enough to compete with their suburban or global counterparts. A quick test for determining Lexile reading levels should be administered in grades 5-12 to provide the data to focus the literacy plan and to create goals for improvement. However, if the data shows that the Lexile reading levels are high, then this recommendation should be reconsidered.

3. Mobility data needs to be produced and analyzed. Are students moving among the elementary schools and if so what is the frequency of that movement? Are students moving among the urban city school districts in Stark County and what is the frequency of that movement?

4. Previous recommendations of staff and principals need to be honored and reviewed with further study—i.e. the recommendation in the District Data Book, 2006 that a behavioral management system should be adopted for the school district.

5. Sub-group performance data should be analyzed together with the supports provided at all grade levels. The analysis would determine if there are achievement gaps that need to be addressed and would identify a pattern of what works for supports in the Massillon City Schools.

6. Drop Out Data needs to be analyzed to determine trends and then methods to reverse those trends.

CURRICULUM

In 2001, India graduated almost a million more students from college than the United States did. China graduates twice as many students with bachelor's degrees as the U.S., and they have six times as many graduates majoring in engineering. In the international competition to have the biggest and best supply of knowledge workers, America is falling behind.[1] –Bill Gates, 2005

Introduction

The author met with Kathy Nolan, Curriculum Director, on December 11, 2006. As requested, Kathy presented a *Curriculum Overview: An Historical Perspective, Fall 2006* (see end of this chapter) as well as Massillon K-5 scope and sequence charts with specific materials aligned to the Ohio Content Standards in three core content areas—reading, math, science and also in writing.

On February 12, 2007 the author met with the Pupil Personnel Services director on Special Education and the interim consultant on Federal Programs

Details of the following programs were also shared:

- District-Wide Literacy Initiative Materials
  - Beliefs, Vision, Mission
  - Information from the Ohio Department of Education Literacy Initiative Conceptual Framework
  - Massillon City Schools Framework for Planning and Implementation: Ohio Literacy Initiative—Resources, Planning for Coherence, Effective Core Program, On-going Assessment and Accountability, Safety Nets, Ongoing Professional Development, Home School Partnerships, and Community Support.
- Marcia Freeman's K-5 School-Wide Writing Program
- Science Curriculum K-4
- Listing of Mathematics Curriculum Units K-5 created under the Crossroads Project
- Everyday Mathematics 2002 & 2004 Ohio Curriculum Map created by Heather Lash, Everyday Math Consultant
- Pacing document example for Math K-5, created by Kathy Nolan

[1] From his remarks at the 2005 National Education Summit on High Schools. Available: http://www.nga.org/center/divisions/1.1188.C_Issue_Brief^D_8021.00.html

- Massillon Middle School Exploratory Class Selections—an outline of exploratory classes
- Massillon Middle School Listing of courses by grade levels 5-8
- Massillon Middle School course descriptions for Writers and Readers Workshop courses

During the conversation with Kathy, she explained that she has been responsible for curricula preschool to grade 8, while Judith Kenny had been responsible for federal programs and high school curricula. Financial constraints often resulted in Kathy's assignment in the district being part-time while she also served as a principal of an elementary school. Judith Kenny retired in December and a consultant is now overseeing federal programs, but not the high school curricula. The curriculum directors report to the Assistant Superintendent of Schools.

Policies 2105 (Mission Statement), 2110 (Statement of Philosophy), 2113 (Meeting State Performance Indicators, 2131 (Educational Outcome Goals), 2132 (Educational Process Goals), and 2110 (Curriculum Development) were analyzed with respect to expected curricula outcomes in the Massillon City Schools.

The author visited all schools to do this study and those findings regarding curriculum are discussed in the sections entitled: Elementary Schools, Middle School and Washington High School.

As the study progressed, the following materials were also submitted and subsequently reviewed:

- Emerson Elementary School: *Report of On-Site Independent Academic Audit.* Effective Schools Consulting International. April 20, 2004.
- *Breakthrough to Literacy: The New Three R's: Research, Reading and Results.* McGraw-Hill.

This chapter includes a Review of the Literature: Curriculum, Observations and Recommendations, and a Summary of Findings.

Review of the Literature: Curriculum

Standards, Testing and Accountability: Standards, accountability and assessments began with the 1642 Massachusetts Bay School Law.[2] Local communities who have funded education have always wanted to know that they are getting value for their dollars.

[2] *Massachusetts Bay School Law*. (1642). Available: http://personal.pitnet.net/primarysources/schoollaw 1642.html

Much discussion and action in the last 20 years has been focused on standards—i.e. what is it that students need to know and be able to do in order to be successful in the world of the future? The purpose of education was seen in that scenario to be related to teaching to agreed upon standards and then measuring the student learning through accountability testing. Tied to the teaching and measurement of standards was the notion that schools should be held accountable if the results of the students in that school were not acceptable in the aggregate.

The teaching profession has had a series of additional requirements placed upon it in the last 10 years as Ohio has moved to a standards based environment and NCLB has required annual testing in grades 2-8 and once in grades 9-12 in reading, math and science. Current graduates are required to pass the 10th grade Ohio Graduation Test, known as a "high stakes test."

Current efforts around standards are best described by Carnevale and Desrochers (2003):

> The current wave of standards-based education reform, which began with the landmark report *A Nation at Risk*, has become a play in three acts. The curtain has come down on Act I now that educational standards are in place. But that was the easy part; setting standards is little more than making fond wishes for American youth. Act II will be more difficult by far. The long march toward the alignment of standards with assessments, curricula and the professional development of teachers and administrators has just begun. Developing the means to ensure that all American youth meet the standards will require enormous effort and new resources. The curtain has not fully risen for ACT III, but the education reform narrative has opened up the accountability debate in higher education. As the culminating educational venue in the pr-K-16 education pipeline, higher education sets the standard for K-12 achievement. It is the keystone institution in aligning educational preparation, work and citizenship.[3]

One doesn't have to do much reading to know that educational standards are evaluated by many groups and usually found to be less than adequate. For example, a brief visit to the Thomas B. Fordham Foundation website (http://www.edexcellence.net/foundation /global/index.cfm) contains a number of critiques of state standards.

In a nutshell, the criticisms of state standards can be summarized as follows:

- Standards and a focus on accountability testing narrows the curricula and ignores developmentally appropriate practices.
- The development of standards was a political process in most states resulting in too many standards and standards that are too vague to serve as guides to specifically tell a teacher what is expected.

[3] Carnevale, A.P. & Desrochers, D.M. (2003). *Standards for what?*, p. 1.

- Too many standards and the vagueness of the standards have led to the need for teachers to determine and unpack "power standards" by first guessing and/or then observing which will be/are tested. This notion leads to the conclusion, by some, that the tests become the curricula.
- Special education is disappearing with the advent of subgroups.
- Vocational Education, now called Career Technical Education is growing and is not reflected in most state standards.
- The evaluation of student performance on the standards is a moving target with annual test score cut-offs set by state departments of education. Students are not challenged in a standards based environment to perform at very high levels because the high school tests usually only test 8th grade material and the focus becomes one of meeting the needs of those students who did not pass the test.
- Setting standards and not revising them does not reflect the rapid pace of technological change in the twenty first century.

These criticisms are described in further detail below.

The fundamental premise that underlies the standards movement is—if schools and teachers, college and/or universities and faculty, states department of education and state education department employees and federal education department and the federal education department employees would clearly state the standards required, teach the standards required, and test the student learning then we would be a country where high student performance prevails. Further, if business representatives were involved in the selection of standards, then they would be satisfied with the employees they received.

Those who oppose the whole notion of standards argue that the curricula are narrowed and developmentally inappropriate practices emerge. For example, Thomas Armstrong (2006) argues that human development research should inform educational practice and thus, preschool and primary curricula would have a greater emphasis on play rather than developing the skills of reading and math.[4] Skilled teachers, heeding this advice, often incorporate play into their standards based teaching practice at the primary level. But, as the years of schooling go on to high school, it is true that the emphasis is on the subject areas that are tested.

In most states, and Ohio is no exception, state standards were set by convening cross-sector citizens groups with membership from the educational professional community. Thus, the process was political and because the state conveners wanted to be democratic and include all input, the standards usually reflect more than what could ever be taught in a school year. As Dr. Joseph Rochford notes, teachers "…are awash in a sea of standards."[5]

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[4] Armstrong, T. (2006). *The best schools*. Alexandria, VA: ASCD.

[5] Rochford, J.A. (2004). *Advancing Ohio's P-16 Agenda: Exit and Entrance Exam*. Canton, Ohio: The Stark Education Partnership, Inc., p. 10.

More problematic is the notion that state standards setting and subsequent testing may not result in the desired outcome. For example, the Center for Educational Policy and Research notes that K-12 state standards are often not linked to grades 13-16:

> According to research conducted in 2001, involvement by higher education faculty and administration in state standards setting has been restricted to several narrowly-defined areas. Some faculty members have contributed their expertise in K-12 content knowledge. Some admissions officers have been asked to "sign off" on K-12 standards. Some higher education administrators have participated in policy discussions. But few standards-setting processes have engaged university faculty broadly or asked them what they specifically expect for university success.[6]

State standards, benchmarks, and indicators are often vague as the following example from Ohio demonstrates:

> **Standard: Life Science, Grades 3-5**
> Students demonstrate an understanding of how living systems function and how they interact with the physical environment. This includes an understanding of the cycling of matter and flow of energy in living systems. An understanding f the characteristics, structure, and function of cells, of organisms and of living systems are developed as well as a deeper understanding of the principles of heredity, biological evolution, and the diversity and interdependence of life. Students also demonstrate an understanding of different historical perspectives, scientific approaches and emerging scientific issues associated with the life sciences.
>
> **Benchmarks for Life Science, Grades 3-5**
> By the end of the 3-5 program
>
> A. Differentiate between the life cycles of different plants and animals.
> B. Analyze plant and animal structures and functions needed for survival and describe the flow of energy through a system that all organisms use to survive.
> C. Compare changes in an organism's ecosystem/habitat that affect its survival.
>
> **Indicators for one portion of Life Science Standard Grades 3-5: Heredity: Grade 3**
>
> 1. Compare the life cycles of different animals including birth to adulthood, reproduction and death (e.g. egg-tadpole-frog, egg-caterpillar-chrysalis-butterfly).

[6] Standards for Success. Center for Educational Policy Research. Retrieved June 4, 2006: http://www.s4s.org/cepr.s4s.faqs.php

Too many standards and the vagueness of the standards have led to the need for teachers to determine and unpack "power standards" by first guessing and/or then observing which will be/are tested. This process leads to the notion, expressed by many, that the tests become the curricula.

Special education is disappearing and in fact, Michael J. Wasta, Superintendent of the Bristol Public Schools in Connecticut, suggests that NCLB provides incentives to school districts to do away with special education.[7] His suggestion is that if special education students are not exempted from NCLB, then at least new measures of improvement should be established.

Vocational Education, now called Career Technical Education, is growing and is not reflected in most state standards. Career and technical educators are challenged to create applied core subject materials that will enable students to succeed on state tests as well as be prepared to continue their technical education.

> Some changes in CTE are under way because of the recent reauthorization of the Perkins Act, the decades-old federal legislation that supports vocational training in high schools and community colleges. Under new rules, schools that receive Perkins funding must have programs geared to either high-skilled, high-demand or high-wage jobs, and those programs must be approved by the state. The law also demands more integrated teaching that recognizes the crossover potential between CTE and academic classes.[8]

The evaluation of student performance on the standards is a moving target with annual test passing score cut-offs set by state departments of education. Most educators like "criterion referenced" tests because they believe that these tests are aligned to the standards. However, the data from state tests are quite misleading because the cut-off scores are manipulated annually. The manipulation is probably best explained by Richard Elmore.[9] He observed in 2000 that standards and high stakes tests will result in a 10% increase in student performance and then everything will level out. While it is understandable that state departments of education want to say that students in the state are making progress over time that is greater than 10%, real progress can only be determined if the same cut-off scores are used each year.

Often students are not challenged to perform at very high levels in a standards based environment. Passing tests becomes the focus. However, many schools are expanding their thinking and creating possibilities for all students to engage in high level classes that

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[7] Wasta, M. (2006). *No child left behind: The death of special education*. Available: http://www.pdkintl.org/kappan/k_v88/k0612rot.htm Downloaded January 3, 2007.

[8] Gustin, G. Friday, Dec. 1, 2006. Vocational education is shifting focus. *St. Louis Post-Dispatch*. Available: http://www.stltoday.com/

[9] Richard Elmore, unpublished statements at Grantmakers for Education Seminar at Harvard 2000.

fulfill their potential for high level learning.[10] Some schools are using contests to make sure that students are challenged way beyond the required curricula. Consider the following example:

> A high school senior from Eugene, Ore., won a $100,000 scholarship last week in the Siemens Competition in Math, Science, and Technology for his research in a new area of mathematics called string topology. The research conducted by Dmitry Vaintrob, 18, a student at South Eugene High School, could provide knowledge that mathematicians and physicists might apply to understand electricity, magnetism and gravity, judges said. The son of Russian immigrants, both professors at the University of Oregon, Mr. Vaintrob reads classical literature in his spare time and likes to memorize poetry. Also winning a $100,000 scholarship was the team of Scott Molony, 18, Steven Arcangeli, 17, and Scott Horton, 17, students at Oakridge High School in Oakridge, Tenn., for developing a technique that could one day help scientists engineer biofuel from plants. The three teenagers will share the prize money. Five other individuals and five teams won scholarships for their research. Their scholarship awards range from $10,000 to $50,000. The Siemens Foundation distributes nearly $2 million annually in scholarships and awards. The science contest has also been known as the Siemens Westinghouse Competition.[11]

Others are asking elementary students to participate in a novel writing experience as illustrated by the following example:

> BEAVERTON -- At 10 years old, Nation Bailey is writing his second novel.
>
> The first is a tale of intrigue and secret missions. Villains Catkong and Dogzilla are out to destroy Tokyo, but the story's hero, Nation, aims to stop them. Only, he goes evil along the way.
>
> Thankfully, the novel's end reveals, it was all just a dream.
>
> Nation, a fourth-grader at Beaverton's McKinley Elementary, started the novel in November as part of National Novel Writing Month. His teacher, Connie Greenlee, enlisted her class in the experiment after her husband participated in 2005.

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[10] Mathews, J. (2006). Escaping ‘average:’ Innovative programs make the case that high-level classes aren't just for the gifted Washington, D.C.: *Washington Post*. Tuesday, November 28, 2006; A08.

[11] Siemens Winner Announced. *Education Week*. December 13, 2006. Available: http://www.edweek.org/ew/articles/2006/12/13/15brief-7.h26.html

> Last year, 632 classes and 15,000 students across the U.S. participated in the National Novel Writing Month's youth program.[12]

Teachers are leading students on virtual field trips:

> This school year, Hannah Landeros, 17, a junior at Howe (Oklahoma) High School, has visited with Pearl Harbor survivors at the USS Arizona Memorial, surveyed Hurricane Katrina damage in New Orleans and compared notes about college placement tests with students in Canada.
>
> She did all this without leaving her school.
>
> "Virtual field trips" are proving increasingly popular in the nation's schools. The same videoconferencing technology that allows business executives to see and communicate with one another half a world away can take students like Hannah any place a camera can go.[13]

Static standards and the rapid pace of technological change: Setting standards but not revising them frequently does not reflect the rapid pace of technological change or the explosion of new content knowledge in the twenty first century.

Students in this decade are computer literate. National Center for Education Statistics found:

> …the majority of students use computers and the Internet. Overall, 91 percent used computers and 59 percent used the Internet. The use of the technologies begins at young ages; 67 percent of children in nursery school were computer users, as were 80 percent of those in kindergarten. About one-quarter (23 percent) of children in nursery school used the Internet, and about one-third (32 percent) of kindergarteners did so. By high school, nearly all students (97 percent) used computers, and a majority (80 percent) used the Internet.[14]

Most of the states have created standards that do not acknowledge the proficiency that students have with computers and the Internet. Infrequent reviews of the technology standards do not allow for the never ending new vocabulary that is rapidly emerging: blog short for weblog, webinar, cloud computing, service-oriented architecture (SOA), etc.

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[12] Parks, C. Novel teaching sparks young fiction writers. Thursday, January 18, 2007. *The Oregonian.* Available: http://www.oregonlive.com/metrowest/oregonian/index.ssf?/base/metro_west_news/1168746913307170.xml&coll=7

[13] Fuson, K. January 30, 2007. No permission slip needed: 'Virtual field trips' let students visit places otherwise far out of reach. *USA TODAY*. Available: http://www.usatoday.com/printedition/life/20070130/virtual_field_trips.art.htm

[14] *Rates of computer and internet use by children in nursery school and students in kindergarten through twelfth grade: 2003*. National Center for Education Statistics, U.S. Department of Education, NCES 2005-111, June 2005. Available: http://nces.ed.gov/pubsearch/pubsinfo.asp?pubid=2005111

Further, the static standards do not allow for emerging trends in technology[15]:

1. Content generated by users. Downey gives the example of YouTube and The News Hour with Jim Lehrer aired an interesting program on January 1, 2007 entitled "Internet Continues to Alter News Media." [16] The point in the foregoing examples is that most people are now obtaining their news from the Internet rather than from reading newspapers. Huge changes have already taken place with news media and more are forecast including the creation of content by the users. Most news media will now incorporate the Internet into their legacy news programs.
2. Cloud Computing. This notion eliminates software as we know it now and uses web-based servers to run the software needed by the users.
3. Service-oriented architecture (SOA) This notion bundles services and allows the users to select a process. The example given is *cancel school bus route*.
4. The gathering of Sharable Content Object Reference Model (SCORM). SCORM creates a uniform structure for digital content allowing for personalized uses of textbooks etc.
5. Telepresence and anytime, anywhere education Internet 2 is now being used to create new forms of distance learning where all can be full participants.
6. 21st Century Learning. Specifically, according to the Partnership for the 21st Century, our students need:

    - Information and communication skills;
    - Thinking and problem-solving skills;
    - Interpersonal and self-direction skills;
    - Global awareness;
    - Financial, economic, and business skills; and
    - Civic literacy.[17]

As time passes, it is likely that the list of 21st century learning skills will grow. For example, Passig (2007)[18] writes about "melioration" in a paper described as follows on the Teachers College website:

> This paper examines the characteristics of the thinking skill we call "melioration" i.e., the competence to borrow a concept from a field of knowledge supposedly far removed from his or her domain, and adapt it to a pressing challenge in an area of personal knowledge or interest. The skill has its source in conscious personal meaning-making, not in the process of deduction. In the unplanned operation of connection and association, one

[15] Downey, G. *Six ed-tech trends to watch in 2007*: *Service-oriented architecture, 'cloud computing' among the developments sure to have an impact on educational technology in the coming year*. eSchool News. Available: http://www.eschoolnews.com/news/showStory.cfm?ArticleID=6781

[16] Available: http://www.pbs.org/newshour/

[17] Available: http://21stcenturyskills.org

[18] Passig, D. (January 10, 2007). Melioration as a Higher Thinking Skill of Future Intelligence TC Record This Week. Available: http://www.tcrecord.org/Content.asp?ContentID=12716

> creates a new concept generating a new insight into a phenomenon, which hitherto had not been described in such a way. This paper relates melioration to existing theories of intelligence, taking the position that human cognitive/intellectual functioning is in part the ability to learn or think in the framework of familiar systemic concepts, and in part the ability to learn or think with new systemic concepts that are then available for future application.

We are making new scientific discoveries. In the past year we learned about the Neanderthal Genome, watched large pieces of the Arctic Ice Top fade into the ocean and learned about dark matter and dark energy.[19] Consider the following new findings regarding early comet dust:

> The minerals found in the particles suggest that the early solar system was a chaotic place where bits of material might be flung from the area near the sun to the solar system's furthest reaches, University of Washington astronomer and project lead scientist Donald Brownlee told the Associated Press.
>
> The comet dust was collected by NASA's Stardust spacecraft, which launched in 1999 and crossed paths with the comet Wild 2 in 2004. A new type of material called an aerogel allowed the spacecraft to safely capture some of the speeding particles surrounding the fast-moving comet. A capsule containing the particles returned to earth in January, and scientists have been analyzing the comet dust ever since.[20]

Access to new content knowledge is now available to all through the Internet. However, science textbooks are behind before they are published and state standards are full of out-of-date content. Concepts such as nanotechnology are difficult to integrate into the curriculum because current curriculum is divided into subject areas:

> Nanotechnology presents an especially difficult challenge in education. It is not a traditional discipline but rather a combination involving physics, chemistry, biology, mathematics, engineering and technology.[21]

Helpful websites are becoming available for free use by teachers and students. As use of these sites grows, it will be more possible for teachers to be up-to-date with content.

One example of a free website has been constructed by Sun Microsystems. Entitled Curriki, it is the result of work done for GELC - the Global Education and Learning

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[19] The News Hour with Jim Lehrer. Available: http://www.pbs.org/newshour/

[20] Comet Particles Offer Glimpse of Solar System's Chaotic Origin. Posted: December 14, 2006, 5:30 PM ET at http://www.pbs.org/newshour/updates/science/july-dec06/comet_12-14.html

[21] Strauss. V. December 19, 2006; A10. Teaching the Notion of Nanotechnology: Science of Manipulating Super-Small Objects Inches Its Way Into Classrooms. *Washington Post*. Available: http://www.washingtonpost.com/wp-dyn/content/article/2006/12/18/AR2006121800905_pf.html

Community - an online project started by to develop works for education in a collaborative effort. The leadership team consists of people with a long-time commitment to exploring the use of technology to improve education. More information about this can be found at http://www.curriki.org/xwiki/bin/view/Main/About.

Since 2004 when the first courses appeared on the Massachusetts Institute of Technology (MIT) open courseware website[22], funded by the William and Flora Hewlett Foundation, the Andrew W. Mellon Foundation, MIT, and the Ab Initio software company, new possibilities were available for high school students. Courses available from MIT, Johns Hopkins University School of Public Health, Tufts University and Utah State University as well as from 156 Chinese universities and sites in France, Japan, and Vietnam allow students and teachers to keep knowledge current.

Changing Goals for K-12 Education: As one thinks about the above current research on curriculum, it becomes very clear that the goals for K-12 education are changing. High school graduation is no longer thought to be sufficient for an individual to thrive in the economy of the future. The new expectation is to prepare all students to be college ready with acknowledgement that the skills for workforce ready and college ready students have converged.

While the form of post-secondary education may vary from preparation for work at a two year technical college or a community college; to an apprenticeship requiring college courses to complete certification requirements; to a four year degree as a start on a professional career, most are recognizing that some post-secondary education will be necessary in the future. Further, the world of work is changing and usually has a technological base requirement for facility with current computer programs such as Microsoft Office and/or computer based drafting programs etc.

As teachers, curriculum and principal leaders have tried to understand how to apply standards based curriculum to their classroom and to succeed in getting all students to do well on the state-wide assessments, a bigger picture is emerging. Concern is being expressed in many quarters that the United States will lose its competitive economic advantage as China and India graduate more students and increases scientific research.

The Task Force on the Future of American Innovation observed that:

> The connection between basic research and the economy is straight forward. Basic research produces discoveries and ideas that form the basis of products that transform an strengthen our economy. Consider the transistor, the computer, the Internet, communications technologies and the myriad laser applications.

[22] Available: http://ocw.mit.edu/OcwWeb/index.htm

> ...countries such as China and India are increasing their innovative capabilities, from research investment and science and engineering degree production to high-tech products, at a time when, using the same measures, the United States appears to be slowing.[23]

Two recent national reports recommend that the United States act quickly to enhance math and science education:

The National Academy of Sciences made four key recommendations to address this issue:

1. Increase America's talent pool by improving K-12 mathematics and science education;
2. Sustain and strengthen the nation's commitment to long-term basic research;
3. Develop, recruit, and retain top students, scientists, and engineers from both the U.S. and abroad; and
4. Ensure that the United States is the premier place in the world for innovation.[24]

In Ohio, the Governor's Commission on Higher Education and the Economy has made similar connections and recommendations:

1. Goal 2: Create more jobs through world-class research, innovation, and technology commercialization. This goal should be achieved by strengthening higher education's research base and ability to develop and bring to market new ideas and innovations.

2. Recommendation 6: Attract and retain more preeminent researchers to maximize the world-class research, innovation and technology commercialization capacities of Ohio's public and private institutions of higher education to drive economic growth and create jobs.[25]

Discussions are now proceeding in the Ohio legislature regarding the creation of "Stem High Schools using funding from the Gates Foundation.[26]

States are connecting economic development and looking at their degree attainment in comparison to other states and adopting strategies for producing a skilled workforce. Ohio is doing this also and the following data is used in support of making change:

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[23] The Task Force on the Future of American Innovation. (2006) *Measuring the moment: Innovation, national security, and economic competitiveness.* Available: www.futureofinnovation.org

[24] National Academy of Sciences. (2006). Rising above the gathering storm: Energizing and employing America for a brighter economic future. Available: http://books.nap.edu/openbook.php?record_id=11463&page=1

[25] Governor's Commission on Higher Education and the Economy. (April 2004) *Building on knowledge, investing in people: Higher education and the future of Ohio's economy.* Columbus, Ohio.

[26] Kostyu, P. E. (2007). STEM schools are House priority. *Repository.* January 3, 2007. Available: http://www.cantonrep.com/

In general, the Ohio economy will provide jobs for workers at all educational levels, but individuals with more education and training will enjoy better job opportunities. Growth rates over the 2002-2012 period will range from 4.7 percent for occupations requiring moderate-term on-the job training to 21.7 percent for occupations requiring an associate degree. All categories that generally require at least postsecondary training are projected to grow faster than the 9.7 percent average for all occupations. Occupations that generally require moderate-term on-the-job training for a worker to achieve average job performance are projected to grow the slowest, reflecting the concentration of many production occupations in declining manufacturing industries. Educational cluster analysis also reinforces the point that all categories that require at least postsecondary training are expected to grow faster than the Statewide average. This analysis shows the highest projected rate of job growth is for categories where most workers have some college or a college degree.[27]

Chart 3-1: Ohio Employment Rate by Education and Training Levels, 2000-2010

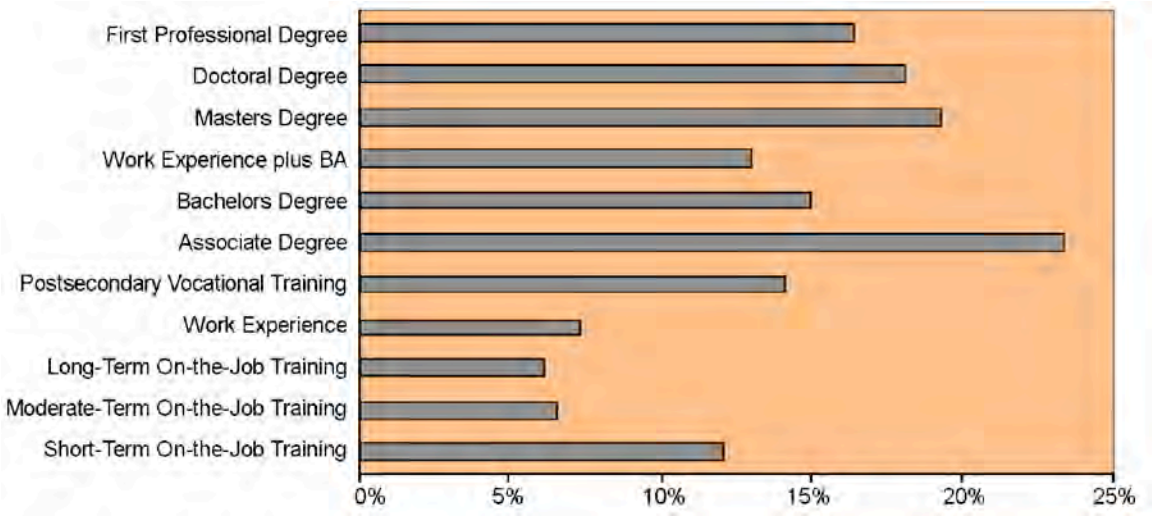

Table 3-1: Stark County Population Educational Attainment (2006)[28]

Attainment 2005	Stark County	Ohio	U.S.
Percent some college, no degree	19.7%		
Percent associate's degree	6.3%		
Percent bachelor's degree or higher	19.4%	23.3%	27%

[27] Ohio Department of Job and Family Services, Bureau of Market Labor Information/Office of Workforce Development, Ohio Job Outlook to 2012

[28] U.S. Census Bureau. (2005). American Community Survey. Available: http://factfinder.census.gov/servlet/STTable?_bm=y&-geo_id=05000US39151&-qr_name=ACS_2005_EST_G00_S1501&-ds_name=ACS_2005_est_G00_

New expectations for all schools and school districts have arisen from global economic thinking. Achieve, through the American Diploma Project set out the expectations as follows:

> Establishing a stronger link between the secondary and postsecondary worlds is what Achieve, Inc; The Education Trust; and the Thomas B. Fordham Foundation set out to do two years ago by launching the American Diploma Project (ADP).[29]

Specifically, Achieve recommends the following action steps:

- Align high school standards and assessments with the knowledge and skills required for success in postsecondary education and work.
- Administer a college-and work-ready assessment, aligned to state standards, to high school students so that they get clear and timely information and are able to address critical skill deficiencies while still in high school.
- Require all students to take a college-and work-ready curriculum to earn a high school diploma.
- Hold high schools accountable for graduating students who are college ready and hold postsecondary institutions accountable for their success once enrolled.[30]

In Ohio, the result is the new Ohio Core—a college bound curriculum for all—passed by the legislature in December 2006 and signed into law on January 3, 2007 by Governor Taft. The Ohio Core is required to be in place for all 5th grade students in the 2006-2007 school year (graduating in 2014). The following information describes the new Ohio Core and was taken from the press release issued by Governor Taft's Office:

The Ohio Core includes:

- 4 years of math, including Algebra II or its equivalent;
- 3 years of science with inquiry-based laboratory experience, including physical science, biology, and advanced study in one or more of the following sciences: chemistry, physics or other physical science; advanced biology or other life science; astronomy, physical geology or other earth or space science;
- 4 years of English;
- 3 years of social studies, including American History and American Government;
- ½ unit of health;

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[29] (2004). *Ready or not: Creating a high school diploma that counts*. Washington: Achieve, Inc.: The American Diploma Project.

[30] From Achieve Power Point Presentation to the Ohio Partnership for Continued Learning, September 14, 2006.

- ½ unit of physical education or two semesters of; and
- Combination of 5 units to be chosen from among foreign language, fine arts, business, technology and Career Technical.

> Schools are to formally integrate economics/financial literacy into the social studies requirement or as a stand-alone class to ensure that every student is exposed to these important concepts. Economic and financial literacy standards already exist within the social studies academic content standards.
>
> Students must complete two semesters of fine arts sometime between grades 7 and 12 as a requirement of graduation.
>
> Districts may choose to excuse students who participate in at least two full seasons of interscholastic athletics, marching band, or cheerleading from the ½ unit physical education requirement. The student must, however, complete ½ credit in another course of study in its place.
>
> Recognizing the importance of foreign language in today's competitive global economy, a Foreign Language Education Council, comprised of education and business leaders will be tasked with developing and recommending a plan for foreign language learning across Ohio's P-16 education spectrum.[31]

A new report, Quality Counts by *Education Week*,[32] ranks Ohio as 27th in the nation for "college success." It is clear that more P-16 articulation is needed to move Ohio up in these rankings.

Dual Credit, the opportunity for high school students to take college courses for both high school and college credit, is a P-16 strategy for increasing the number of students enrolling in and completing entry level certificate or degree programs. Other states are rapidly expanding these opportunities for students.[33] The Ohio Core will increase these opportunities for Ohio students.

Some think that new expectations should result in a complete restructuring of all school districts. For example, on December 14, 2006, the National Center on Education on the Economy published a major report entitled *Tough Choices or Tough Times*. The executive summary of the report states:

> The core problem is that our education and training systems were built for another era, an era in which most workers needed only a rudimentary education. It is not possible to get where we have to go by patching the

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[31] Available: www.ohio.gov
[32] Available: www.edweek.org
[33] Zlatos, B., (2006) *State pays for more high school students taking college classes*. Pittsburgh Tribute-Review. Available: http://www.pittsburghlive.com/x/pittsburghtrib/

> system. There is not enough money available at any level of our intergovernmental system to fix the problem by spending more on the system we have. We can get where we must go only by changing the system itself.[34]

A World Class Ohio System of Education?

Achieve Inc. published a new report in early February 2007. Entitled, Creating a World Class Education System in Ohio, (see Appendix 5 for the executive summary) the report suggests that new legislation be enacted in Ohio that would account for most of the criticisms of standards by:

1. Building a process that allows continual upgrading of the Ohio standards to account for new knowledge. The standards would be benchmarked against US state standards as well as international standards.
2. Establishing end of course tests at the high school level.
3. Working toward the elimination of the OGT test, and
4. Making use of a college readiness assessment.[35]

Rising Standards and Adolescent Literacy, A Caveat

As standards rise, so do the demands for a rise in reading levels and other literacy skills, making it necessary for all teachers at the middle school and high school levels to become teachers of literacy.

Some think that literacy is the key to achieving a "mountain curve" in a school district:

> … the characteristics of the mountain curve are quite distinct from the normal distribution or bell curve. …the mountain curve is skewed to the right. While there remain variations among students, the differences in performance are not the wide distinctions between success and failure that characterize the bell curve, but rather the variation in student performance largely take place within a zone of success on the right side of the cure. (p. 178)[36]

Adolescent literacy is a relatively new area of focus and middle school and high school teachers across the United States are learning how to work with literacy. Even the definitions vary. Some would say that middle and high school teachers need to become teachers of reading, others would agree with Ivey and Fisher's (2006) definition:

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[34] (2006). *Tough choices or tough times: The report of the new commission on the skills of the American workforce.* Washington, D.C.: The National Center on Education and the Economy. p. 8.

[35] Achive, Inc. (February 2007). *Creating a world class education system in Ohio*. Retrieved February 14, 2007, from http://www.achieve.org/files/World_Class_Edu_Ohio_FINAL.pdf

[36] Reeves, D.R. (2006). *The learning leader: How to focus school improvement for results*. Alexandria, VA: Association for Supervision and Curriculum Development.

> Learning requires reading, writing, speaking, listening, and viewing. Until we can download information directly into our brains (hopefully while we're sleeping), we will learn with and through literacy processes. Thus we do not subscribe to the idea that all teachers are teachers of reading. Rather, we know that learning is language based and that all teachers have a role to play in students' understanding and use of reading, writing, speaking, listening, and viewing.
>
> In this book, we hope not to perpetuate the "every teacher is a teacher of reading" mantra. We have seen advertisements for countless workshops and have read numerous professional materials in which middle and high school teachers are urged to "incorporate reading and writing strategies" or "teach reading within the subject areas." No doubt, the popularity of these phrases stems from the underlying belief that in order to raise students' literacy achievement, all teachers need to pitch in, and students need lots of reading *instruction*. We are completely in favor of increasing students' literacy achievement. But we would argue that, primarily, students need lots of rich, literacy-based learning *experiences* across the school day, and sometimes those experiences require specific instruction in reading, but *all have the ultimate goal of learning and thinking*.[37]

As teachers plan instruction in a challenging environment, it is clear that they will need to incorporate literacy into their work. And, as they work to make sure that all students make adequate yearly progress and the school and district performance looks like a "mountain" rather than a Bell Curve, then it will be necessary to really work at achieving ever increasing levels of literacy.[38]

Observations and Recommendations

The Massillon City Schools have a long history of being in compliance with the requirements issued by the Ohio Department of Education and those issued by the federal government with regard to NCLB. Evidence for this statement can be found by examining the scope and sequence charts in the school district and noting that specific materials in each subject area at each grade level K-5 have been identified and are used with teachers.

The Stark County process for implementing standards-based curriculum development has been followed by the Massillon City Schools. Lead teachers were identified and worked with an outside consultant funded with grant dollars.

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[37] Ivey, G. & Fisher, D. (2006). *Creating literacy-rich schools for adolescents*. Alexandria, VA: Association for Supervision and Curriculum Development.

[38] Reeves, D.R. (2006). *The learning leader: How to focus school improvement for results*. Alexandria, VA: Association for Supervision and Curriculum Development.

The elementary curricula are outstanding and would be the envy of many school districts in the United States. All of the findings that have been reported in the review of the literature have been incorporated into these curricula.

There is little evidence that the new expectations for curricula have been examined or added to the discussions in the school district. Thus, the new expectation that will result in more students attending some form of post secondary education is not present in the policies of the Board of Education nor the materials that teachers are given related to scope and sequence, standards, benchmarks and indicators. Dual credit programs have not been thought about and tracking the students from Tech Prep programs into some form of post-secondary education have been neglected. Further, there is little evidence that Massillon faculty has been challenged to discuss and plan for implementation of the new Ohio Core Curriculum or the creation of additional Tech Prep programs that emphasize emerging technologies in the biomedical or nanotechnology fields.

Progress in the district has been measured with regard to compliance requirements and progress has been made. The former superintendent asked that curriculum work proceed from preschool to grade 8 before looking at the high school curriculum. Given this requirement, it is not a surprise to find that two elementary schools were first to be rated as excellent. It is also not a surprise to find that the curriculum is siloed—i.e. little conversation has taken place between the levels—pre-school, K-4, 5-8 or 9-12.

Compliance is not sufficient as a direction for the school district. Thought must be given to what is going to be required of students who will need to thrive in a future world where individual prosperity will be determined by the individual's ability to find new knowledge, manipulate those findings and create new knowledge, not just master knowledge identified as standards, benchmarks and indicators by the Ohio Department of Education and delivered in the classroom as discrete parts or units of instruction.

In a compliance environment, faculty and students look to the leadership of a state education department to specify content for instruction and to local leadership for rule making that specifies the climate of the schools.

In the educational environment of the future, faculty and students will take responsibility for creating a learning environment where creativity in the form of manipulating knowledge is valued and where college going is the expected norm for all students. Faculty and students will be technologically proficient and adept at finding and manipulating new knowledge. Sharing and using new knowledge must be the order of the day. Courses of study and methods of delivering those courses of study must change. This is a tall order because the pace of change is so rapid and likely to become much more rapid as time goes on.

Specific recommendations and strategies follow for actualizing the inherent capacity present in the Massillon City Schools:

1. **Recommendation:** The Massillon City School District needs to reexamine the mission and vision (stated as philosophy) currently set out in the Board of Education Policy Manual (see Appendix II).

2. **Recommendation:** The Massillon City School District has a long list of Educational Outcome Goals (see Policy 2131 in Appendix II) and Educational Process Goals (see Policy 2132 in Appendix II). Neither the outcome nor process goals contain any measures that would enable district personnel to evaluate the success of the district or the schools in meeting these goals. Revising these policies to focus on an overall, measurable goal with a dashboard of indicators to realize its inherent capacity to become one of the best school districts in the nation would focus district activity.

3. **Recommendation:** The curriculum needs to be matched against the revised mission, vision, educational outcomes, and educational process goals.

4. **Recommendation:** The Massillon City School faculty needs to open a dialogue K-12 about the requirements of the curriculum in a new age with new expectations. The Ohio Core legislation needs to be examined in this light and action steps planned.

5. **Recommendation**: The Massillon City Schools need to complete the process of creating scope and sequence charts, curriculum and where appropriate curriculum matched to standards. Excellent work has been done but it often ends in grade 4 or 5. Grades 6-8 need to be completed and conversations need to begin immediately regarding the creation and implementation of a literacy plan grades 9-12. Joining with several other Stark County School districts to complete this work or to look at the work they have completed would be extremely helpful and is very likely to speed the process.

Summary of Findings: Curriculum

Mission and Vision: The mission and vision of the school district are too narrow with a focus on compliance. The mission and vision need to be rethought and restated.

Educational Outcome and Process Goals: The Massillon City School District has a long list of Educational Outcome Goals (see Policy 2131 in Appendix II) and Educational Process Goals (see Policy 2132 in Appendix II). Neither the outcome or process goals contain any measures that would enable district personnel to evaluate the success of the district or the schools in meeting these goals. Revising these policies to focus on an overall, measurable goal with a dashboard of indicators to realize its inherent capacity to become one of the best school districts in the nation would focus district activity.

Curriculum: The curriculum needs to be matched against the revised mission, vision, educational outcomes, and educational process goals. The Massillon City School faculty needs to open a dialogue K-12 about the requirements of the curriculum in a new age with new expectations. The Ohio Core legislation needs to be examined in this light and action steps planned.

Requirements of the Curriculum in a New Age: The Massillon City Schools need to complete the process of creating scope and sequence charts, curriculum and where appropriate curriculum matched to standards. Excellent work has been done but it often ends in grade 4 or 5. Grades 6-8 need to be completed and conversations need to begin immediately regarding the creation and implementation of a literacy plan grades 9-12. Joining with several other Stark County School districts to complete this work or to look at the work they have completed would be extremely helpful and is very likely to speed the process.

Curriculum Overview: An Historical Perspective, Fall, 2006
Kathy Nolan, Curriculum Director

The following information briefly outlines the progress made to date for the Massillon City Schools in the area of curriculum, instruction and student achievement.

1998-1999

During the summer of 1998, we were able to write and received a **Comprehensive School Reform Demonstration** grant for Franklin Elementary School. This grant started us on the road to literacy improvement through the purchase and support of the Breakthrough to Literacy Program and the ongoing training that accompanied it. With this grant we were able to add the Breakthrough program to all of our classrooms grades K-2 at Franklin Elementary and some classrooms at Smith and Emerson Elementary Buildings.

The in house trainer provided by Breakthrough began the conversation about literacy instruction and its support in the classroom.

2000-2001

Wrote and received a Continuous Improvement Implementation grant providing additional dollars for each building to continue to move forward with the literacy initiative and building improvements based on their continuous improvement plans.

Wrote and received 4 **Ohio Reads** grants. These grants permitted us to train teachers in grades K-2 in the primary literacy academy and provide Reading Recovery services in 4 of our elementary buildings including Franklin, Emerson, Smith and Whittier. These grants permitted us to purchase numerous trade books for all of the buildings. As we were training teachers to be teachers of reading, they requested that they give up the basal and move into the trade books exclusively. Each year we have continued to receive Ohio Reads grants and continue to provide materials across all content areas including science and social studies along with professional development opportunities related to literacy.

A district-wide literacy team was formed to look at the way we taught literacy and how to improve its implementation. As a result of this effort, we were able to institute a comprehensive approach to literacy which included Breakthrough to Literacy, Marcia Freeman's Writer's Craft curriculum and a district wide common assessment policy across all areas of literacy. (See attached)

Wrote and received a **Reading for Excellence Act** grant awarding the district 1.3 million dollars over 3 years of implementation. The primary purpose of this grant was to

provide high quality professional development for all elementary teachers throughout the district. The model used was based on Joyce and Showers research recognizing the need for coaching support of all professional development to ensure transfer of the newly learned strategy into everyday practice. This grant permitted us to provide a literacy specialist and 3 literacy coaches to implement the training and provide the coaching support. It also allowed us to finish the implementation of Breakthrough to Literacy at all of the elementary buildings throughout the district. Each teacher received two full years of training and coaching in the model as well as in specific literacy training.

2001-Present

Wrote and received a federal **21st Century Community Learning Centers** Grant and was funded $1,400,000 over 3 years to expand after school programming to all children throughout the district. We have continued to write and receive several **21st CLC** grants expanding the after school program to the middle school. Programming is offered 5 days per week at the elementary level and 4 days per week at the middle school. Through the work of the literacy specialist, we were able to offer and support the **Core Literacy Curriculum** out of John Carroll University to teachers throughout the district. We have worked primarily with the greatest need buildings including Franklin and Emerson but have also be able to offer the curriculum at Whittier Elementary and am in the second year of its delivery at the Massillon Middle School. This year, we are adding the training to the preschool professional development agenda and have added Bowers Elementary. It is our goal to continue the training next year at the Massillon Middle School and at Gorrell Elementary.

We continue to work with the literacy initiative across all content areas and are working closely with the curriculum with math, science and social studies teachers at the middle school. The teachers recognize that literacy is a shared responsibility and needs to be taught and supported in all of the content areas.

2002-2004

Rolled out the standards in the areas of Language Arts, Math and Science for all teachers grades K-12. We began the personalization of the standards documents in the areas of Language Arts, Math and Science at the elementary level. This personalization has not been completed yet for middle school and high school even though they have had the standards documents and have worked extensively with them through various professional development opportunities at the district and county levels.

We implemented the **Everyday Mathematics** program in grades K-5 across the district in 2003, in grade 6 in 2004 and Transitions math grade 7 in 2005. Realizing that the program was very good but not completely aligned with the assessment coming from the state, we worked extensively with the Crossroads Math Program headed up by Dr. Kate Wiles from Walsh University. Those parts of the units developed are still being used today in support of the math programming.

2004-2006

Worked with the county office to implement and support the Science Companion modules at the elementary and middle school levels. We have purchased these with grant and set aside dollars and have not been able to fully implement due to financial constraints. We will have these fully implemented by 2007.

We worked at the middle school level to implement **History Alive** in alignment with the social studies standards. It is our hope to review and implement **Social Studies Alive** at the elementary levels for the 2007-2008 school year along with the personalized standards document.

Massillon Washington High School has worked closely with the MSP coaches to realign their curriculum to better meet the needs of the students in light of the Ohio Graduation Test and beyond. We have 2 MSP coaches who work closely with the county office and our high school and middle school to provide support for teachers, professional development and tutoring for at risk students.

INSTRUCTION

For what purpose does your school district exist? …Although the wording could vary, the basic answer would be something along the following lines: "we exist for the purpose of educating all the students we serve to high levels through high quality instruction." For the instructional purpose to be fulfilled, continuous instructional improvement must be the name of the game, the relentless focus, if not obsession, of leaders and practitioners throughout the system. The core work of continuous instructional improvement throughout the system is not simply a large-scale technical challenge. It's a large-scale adaptive or transformational challenge with systemic implications at every turn. The nature and intensity of professional development and material support required to bring one teacher from average to masterful instructional practice involves a considerable investment of time, energy, expertise, and dollars. Accomplishing this challenge in all classrooms in all schools on an ongoing basis is the supreme systemic challenge of district-level educational leadership in the 21st century. – Strategies (2006)[1]

Introduction

On December 12, 2005, Kathy Nolan provided copies of State Education Department created documents related to a core curriculum for literacy. While labeled as "curriculum" these documents are actually a system for instruction to be used with a literacy plan.

- Teaching Early Language and Literacy: A core curriculum for educators (preschool). 2004
- Teaching Reading and Writing, A core curriculum for Educators, January 2000 intended for K-3
- Teaching Adolescent Literacy: A core curriculum for educators, Grades 4-12, 2004

This chapter includes a Review of the Literature: Instruction; Observations and Recommendations, and a Summary of Findings.

[1] *Strategies* (2006) Panasonic Foundation in cooperation with the American Association of School Administrators and the University Council for Educational Leadership. Retrieved December 23, 2006 from http://aasa.files.cms-plus.com/PDFs/Publications/Strategies/Strategies1206.pdf

Review of the Literature: Instruction

Classroom Climate for Instruction

What educators have thought for years is now being confirmed through research, i.e. that ….a positive climate facilitates academic improvement (p. 17).[2]

What is new is that brain-based research is now providing further evidence for a positive classroom climate:

> The studies described confirmed the negative impact of stress on memory storage and the positive effect of dopamine release when students expect a positive experience. (p. 94)[3]

Organizing the Classroom for Instruction and Accommodating the Needs of All Students

Teachers have a complex job that requires them to plan activities and lessons that ensure that all students will be successful.

Teachers had grown accustomed to providing whole class instruction without the need to differentiate instruction. In fact, schools were tracked and once students were placed in a track, they rarely moved to a higher level. In recent years, particularly with No Child Left Behind and Individuals with Disabilities Education Improvement Act in 2004, all students include those with identified disabilities.

Carol Ann Tomlinson (2005) reminds us that a classroom today, when differentiated, looks like a one-room schoolhouse of old:

> In the United States, differentiation was a way of life in the one-room schoolhouse. There, the teacher knew students would vary greatly in age, experience, motivation to learn, and proficiency. To effectively instruct the range of students, teachers had to be flexible in their use of time, space, materials, student groupings, and instructional contact with learners. Teachers could not assume students were essentially alike in their learning needs, and could not suppose that teaching one topic in one way according to one timetable was a viable practice.[4]

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[2] Sullo, B. (2007). *Activating the desire to learn*. Alexandria, VA: Association for Supervision and Curriculum Development.

[3] Willis, J. (2006). *Research-based strategies to ignite student learning*. Alexandria, VA: Association for Supervision and Curriculum Development.

[4] Tomlinson, CA. (2005). Traveling the road to differentiation in staff development *JSD*, 26(4). National Staff Development Council. Available: http://www.nsdc.org/library/publications/jsd/tomlinson264.cfm

A compelling argument has been made for differentiated instruction rather than tracking or whole class instruction as the following illustrates[5]:

1. The United States is becoming a nation of racial and ethnic minorities, rather than a nation with a majority race and multiple minorities. Classrooms mirror that ethnic, cultural, and linguistic diversity. To be effective, teachers must take into account the student's language, economic status, background experience, and views of the world, all of which affect the child's learning.[6]

2. Most districts now include students with identified special education needs in general education classrooms. About 96% of teachers have students in their classroom who have been identified with a learning disability, and on average, have three to four students with Individualized Education Plans. In addition, most students identified as gifted spend the majority of their academic time in general education settings. Students in each of these populations (as well as students with multiple exceptionalities whose needs encompass both populations) require responsive instruction to develop to their full potential.[7]

3. Tracking students by ability levels to address learner needs has not helped students achieve and has, in fact, resulted in lowered expectations for many students who could perform at a higher level if given appropriate opportunities to do so.[8] An exception is advanced learners, who likely would suffer from being placed in more heterogeneous classrooms unless advanced learning opportunities were consistently available.[9]

4. The achievement gap between Caucasian students and many minority groups - including African-American, Hispanic, and Native American learners - is likely aggravated by tracking, which separates students perceived as lower performing from those perceived as higher performing.[10]

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[5] Tomlinson, CA. (2005). Traveling the road to differentiation in staff development. *JSD*, 26(4). National Staff Development Council. Available: http://www.nsdc.org/library/publications/jsd/tomlinson264.cfm

[6] Marx, G. (2000). *Ten trends: Educating children for a profoundly different future.* Arlington, VA: Educational Research Service.

[7] U.S. Department of Education. (2001). *Twenty-third annual report to Congress on the implementation of the Individuals with Disabilities Education Act.* Washington, DC: U.S. Government Printing Office.

[8] Applebee, A., Langer, J., Nystrand, M., & Gamoran, A. (2003, Fall). Discussion-based approaches to developing understanding: Classroom instruction and student performance in middle and high school English. *American Educational Research Journal, 40*(3), 685-730.

[9] Kulik, J. & Kulik, C. (1987). Effects of ability grouping on student achievement. *Equity & Excellence, 23*(1-2), 22-30.

[10] Denbo, S. (2002). Why can't we close the achievement gap? In S. Denbo & L. Beaulieu (Eds.), I*mproving schools for African-American students: A reader for educational leaders* (pp. 13-18). Springfield, IL: Charles C. Thomas.

5. Some experts also question the efficacy of special programs - such as those for students with learning disabilities and students with reading problems - in raising the achievement levels of students assigned to those programs (Tomlinson, 2004). These indicators point to a clear need for teachers who can teach diverse student populations, grouped heterogeneously, at a high level. Achieving that goal seems likely only when teachers proactively respond to the varied needs of their learners.[11]

Teachers understand the need to pay attention to student variance, and evidence abounds that teaching with student variance in mind yields positive results (Tomlinson et al., 2003).[12] However, while teachers understand the concept of differentiation, most do not know how to implement differentiation:

> While many teachers indicate that they believe differentiated or responsive teaching would benefit students, they also indicate they do not believe it is feasible for them to differentiate instruction (Schumm & Vaughn, 1991). Research - as well as a commonsense look around schools - suggests that the "infeasibility" argument is winning in teachers' struggle of conscience.
>
> 1. Teachers seldom differentiate instruction - whether for students who are English language learners, students with learning problems, or students identified as gifted.
>
> 2. Few teachers instruct in ways that are culturally and racially sensitive.
>
> 3. When teachers do differentiate instruction, they often do so in ways that are more tangential than substantive, and in ways that are more reactive than proactive or planned.
>
> 4. Even teachers in special class settings who differentiate for students with an exceptionality that "matches" their specialty seldom differentiate for students with exceptionalities in other areas or with multiple exceptionalities.
>
> 5. Few preservice teacher programs seem to prepare beginning teachers to plan for effective instruction of academically diverse learners (See Tomlinson et al., 2003).

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[11] Tomlinson, C. (2004, November/December). The mobius effect: Addressing learner variance in schools. *Journal of Learning Disabilities, 37*(6), 516-524.

[12] Tomlinson, C., Brighton, C., Hertberg, H., Callahan, C., Moon, T., Brimijoin, K., Conover, L., & Reynolds, T. (2003). Differentiating instruction in response to student readiness, interest, and learning profile in academically diverse classrooms: A review of literature. *Journal for the Education of the Gifted, 27*(2/3), 199-145.

> Teaching is a habit-bound profession. The demands of teaching necessitate that teachers develop virtually automatic classroom routines to be able to survive the early stages of becoming a teacher. Once those habits and routines are set, it is profoundly difficult for teachers to modify them significantly. Indications are that while many teachers see an increasing need to reach out differently to students whose differences are evident, they lack the skills to do so.[13]

Many are using the above thinking and calling for more differentiation in the individual classroom leading to changed thinking and a lesser number of students being identified as special education students. Differentiation would then replace the deficit model:

> The main criterion for eligibility for special education services, then, has been *proof of intrinsic deficit*. There are two problems with this focus: First, defining and identifying high-incidence disabilities are ambiguous and subjective processes. Second, the focus on disability has become so intertwined with the historical devaluing of minorities in the United States that these two deficit lenses now deeply influence the special education placement process.
>
> The real problem is the arbitrariness and stigmatizing effects of the entire process. Students shouldn't need a false disability label to receive appropriate support. They also shouldn't acquire that label because they had inappropriate or inadequate opportunities to learn. And they shouldn't end up in programs that don't offer the truly specialized instruction they need.
>
> The use of the Emotional/Behavioral Disorders (EBD) label grew by 500 percent between 1974 and 1998, from just over 1 percent in 1974 to just over 5 percent in 1998 (National Research Council, 2002). …One teacher in the study commented, "They're not disturbed. They're just a pain in the neck!" As many scholars have observed, it's often difficult to tell whether the behavior is mostly troubling to school personnel or whether it reflects a troubled child.[14]

Often suggestions are made that local child study teams should be monitored to make sure that the numbers of students placed in special education decline:

> About 14 percent of public school children -- more than 6 million students ages 3-21 -- are in special education. The number of disabled children is "slowly increasing," according to the National Center for Education Statistics. About 1 million children are considered disabled in the three fastest-growing categories: speech and language impairments; autism and

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[13] Tomlinson, CA. (2005). Traveling the road to differentiation in staff development. *JSD*, 26(4). National Staff Development Council. Available: http://www.nsdc.org/library/publications/jsd/tomlinson264.cfm

[14] Harry, B. & Klingner, J. (2007). Discarding the Deficit Model. *Educational Leadership*. *64*(5), 16-21

> traumatic brain injuries; and health impairments due to chronic and acute conditions such as asthma, epilepsy, diabetes, and lead poisoning.
>
> Schools with predominantly white students and teachers often place "disproportionately high numbers of their minority students into special education," Congress reported, noting that African-American children are identified with mental retardation and emotional disturbance at far higher rates than white students. African-American children represent just under 15 percent of the population ages 6 to 21, but more than 20 percent are classified with disabilities.[15]

Some are quite strident about special education and say the following:

> ….special education inflicts harm by keeping children from reaching their potential. Instead of giving these students an extra hand, the special-education bureaucracy unnecessarily segregates them while passing them from one grade level to the next, irrespective of how well they've mastered material. The result is a system that creates in these students a crippling sense of helplessness and entitlement. This is certainly the case for the least well-defined subgroup of special-ed students, those designated learning disabled (LD).
>
> Though the LD label is used for a wide array of learning problems, there is a thread that ties these diagnoses together: flawed "basic psychological processes," which are required for spoken or written language. In other words, students who don't listen, think, speak, or read on grade level are often labeled LD. Any number of disorders can cause a breakdown in listening, reading, or writing. Some, such as acute brain injury, are legitimate medical conditions that require special attention. Too frequently, however, the only problem a child has is that he or she never learned to read and write effectively in the lower grades.
>
> A child with poor reading skills finds learning increasingly difficult beginning in third or fourth grade, when school shifts from learning basic skills to acquiring knowledge in various content areas. Struggling readers hit a performance wall over the next few grades and experience failure in class after class. Significantly, many of these students become disruptive and disinterested (especially boys), and/or they withdraw (especially girls). These behaviors, and the poor performance driving them, most often appear at ages 10-12, when children are tested for LD.[16]

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[15] Black, S. (2007). A vigilant approach. *School Board Journal, 194*(1). Retrieved March 4, 2007 from http://www.asbj.com/2007/01/0107research.html

[16] Williams, J. (April 06, 2006). Teaching disabled: Special ed is especially vulnerable to the problems of public education. *National Review*. Available: http://www.nationalreview.com/comment/williams 200604060617.asp

What causes confusion is that not all of the experts agree:

> Although more schools are enrolling children who have disabilities in regular classrooms, an expert in special education made the radical suggestion yesterday that they be "separated from the general school population and given intensive, relentless instruction."
>
> Dr. Naomi Zigmond, a professor of special education at the University of Pittsburgh, discussed her uncommon views with members of the Learning Disabilities Association of America in a keynote address that kicked off its 44th annual international conference at the Westin Convention Center hotel.[17]

Some suggest that general education teachers are poorly trained to teach special education students:

> A growing number of North Jersey educators are teaching special needs children for the first time, and advocates worry that some inadequately trained instructors may shortchange students.
>
> Federal and state laws mandate that children with disabilities receive appropriate public education throughout their academic careers, with instruction tailored to meet their unique needs. The number of special needs students in mainstream classrooms have increased statewide, due mainly to federal legislation that encourages the inclusion of such pupils in general education courses.
>
> Although training is available for teachers on the state, county and local levels, there are no minimum standards or requirements for general education teachers to receive special needs instruction. Moreover, if teachers are not properly trained, advocates say, special education students can fall behind and not receive the education to which they are entitled under the law.
>
> "If the student is not participating in what is being taught, that is not inclusion," said Greg Mizanin, program specialist for the New Jersey Council on Developmental Disabilities.
>
> Richard Mainzer, associate executive director for professional services for the Council for Exceptional Children, said occasional single or multi-day professional training and development sessions for teachers are not enough to properly prepare educators.

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[17] Grant, T. (February 15, 2007). Expert swims against trend of special ed students in mainstream classes. *Pittsburgh Post-Gazette*. Available: http://www.post-gazette.com/pg/pp/07046/762290.stm

> "It's one day in and out," he said, referring to the amount of training many teachers receive in preparation for their special needs students.
>
> Mainzer praised the strides made statewide in elementary school education for children with special needs, but he criticized efforts made on the high school level, which "remains pretty much a wasteland."[18]

In some states, Ohio included, response-to-intervention programs (RTI Method) are being considered and are in varying stages of implementation. Samuels, 2006 defines the RTI Method as follows:

> Generally, a response-to-intervention program is considered to have three tiers of instruction for struggling students. The first tier is standard classroom instruction. A student who has academic problems is then referred to a second tier, which might include small-group sessions and more intense instruction, using scientifically based methods shown to provide results for struggling learners. The third tier is yet more intensive, and may include individualized instruction. If a student continues to have learning difficulties after the third tier, he or she may be in need of special education services. Each tier is also marked by careful monitoring of the child's progress, which includes short tests given as often as once a week to gauge a student's responsiveness to the interventions.[19]

Because the RTI Method is a fairly new way of instructing, the Department of Education is financing a number of current and forthcoming research studies including:

- **Reading and RTI** Vanderbilt University is investigating several questions related to reading instruction and learning disabilities, including determining valid ways of monitoring a student's "responsiveness" and determining a valid definition of nonresponsiveness to intervention.

- **RTI in Urban Schools** The University of Kansas and the Illinois state education agency are partnering in an effort to study the approach in high-poverty urban schools in both states. The goal is to help schools devise different strong interventions both for academics and behavior.[20]

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[18] Alvarado, M. (December 10, 2006). Swimming upstream in the mainstream. Bergen Record. Available: http://www.northjersey.com/print.php?qstr=ZmdiZWw3Zjd2cWVlRUV5eTcwMzU4NDImeXJpcnk3ZjcxN2Y3dnFlZUVFeXk0

[19] Samuels, C. A. (2006). Ed. Dept. backs research plans for RTI Method. *Education Week,26*(11), 20,22

[20] Samuels, C. A. (2006). Ed. Dept. backs research plans for RTI Method. *Education Week, 26*(11), 20, 22

Instructional Strategies or Ways of Teaching the Curriculum

While curriculum is usually mandated through state standards and enriched through local policy, choices of instructional strategies are the purview of the teacher, the school and the district. A listing of the instructional strategies that can be used and the roles of the teacher and student are included at the end of this chapter.[21]

Planning Instruction

Often the choice of instructional strategy is governed by the curricula outcome desired. For example, if the purpose of a lesson is to enable the student to acquire knowledge, then lecture, memorization, and guided practice would be the best choices. On the other hand, if the purpose of the lesson is to enable the student to apply or adapt knowledge then the best choices of instructional strategies would be: cooperative learning, demonstration, integrating technology into the instruction, problem-based learning, project design, simulation/role-playing, Socratic seminars and work-based learning. A listing of the purposes of instructional strategies can be found on the last page of this chapter.[22]

Teachers, schools and school districts often try to achieve "flow," a concept advanced by Mihaly Csikszentmihalyi (1990)[23] and expanded in 1996[24] and 1998.[25] Flow requires a balance between the challenge of the task and the skill of the performer. If the task is too easy or too difficult, flow cannot occur.

Bruya & Olwell (December 20, 2006) described activities with flow as follows:

> Students in an alternative high school have a weeklong unit on the history, math, and science of Motown music. It is the only week in the school's history with perfect attendance.
>
> Middle school students create history projects around areas that interest them, in formats ranging from exhibits, to skits, to PowerPoint presentations. Their topics include The Silk Road, the disappearance of the Roanoke Colony, and the discovery of America by the Vikings.

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[21] Daggart, W. (2007). *Using instructional strategies*. Bedford, NY: International Center for Leadership in Education, Inc.

[22] Daggart, W. (2007). *Using instructional strategies*. Bedford, NY: International Center for Leadership in Education, Inc.

[23] Csikszentmihalyi, Mihaly (1990). *Flow: The psychology of optimal experience*. New York: Harper and Row.

[24] Csikszentmihalyi, Mihaly (1996). *Creativity : Flow and the Psychology of Discovery and Invention*. New York: Harper Perennial.

[25] Csikszentmihalyi, Mihaly (1998). Finding Flow: The Psychology of Engagement With Everyday Life. New York, Basic Books.

> Elementary students gather after school for a weekly math club. Local university students supervise math activities, culminating in a family math night that brings youngsters' parents into the school as well.[26]

Daniels and Bizar (2005) suggest that when planning instruction, teachers should use a less, more framework:

LESS

- whole-class-directed instruction, e.g., lecturing;
- student passivity: sitting, listening, receiving, and absorbing information;
- prizing and rewarding of silence in the classroom;
- classroom time devoted to fill-in-the-blank worksheets, dittos, workbooks, and other "seatwork"; student time spent reading textbooks and basal readers;
- time spent thinly "covering" large amounts of material in every subject area;
- rote memorization of facts and details;
- stress on competition and grades;
- tracking or leveling students into "ability groups";
- use of pull-out special programs;
- use of and reliance on standardized tests.

MORE

- experiential, inductive, hands-on learning;
- active learning in the classroom, with all the attendant noise and movement of students doing, talking, and collaborating;
- emphasis on higher-order thinking; learning field's key concepts and principles;
- penetrating study of fewer topics, so that students internalize the field's way of inquiry;
- time devoted to reading whole, original, real books and nonfiction materials;
- responsibility transferred to students for their work: goal setting, record keeping, monitoring, evaluation;
- choice for students—picking their own books, writing topics, team partners, research projects;
- enacting and modeling of the principles of democracy in school;
- attention to varying cognitive and affective styles of individual students;
- cooperative, collaborative activity; developing the classroom as an interdependent community; heterogeneously grouped classrooms where individual needs are met through individualized activities, not segregation of bodies;
- delivery of special help to students in regular classrooms;

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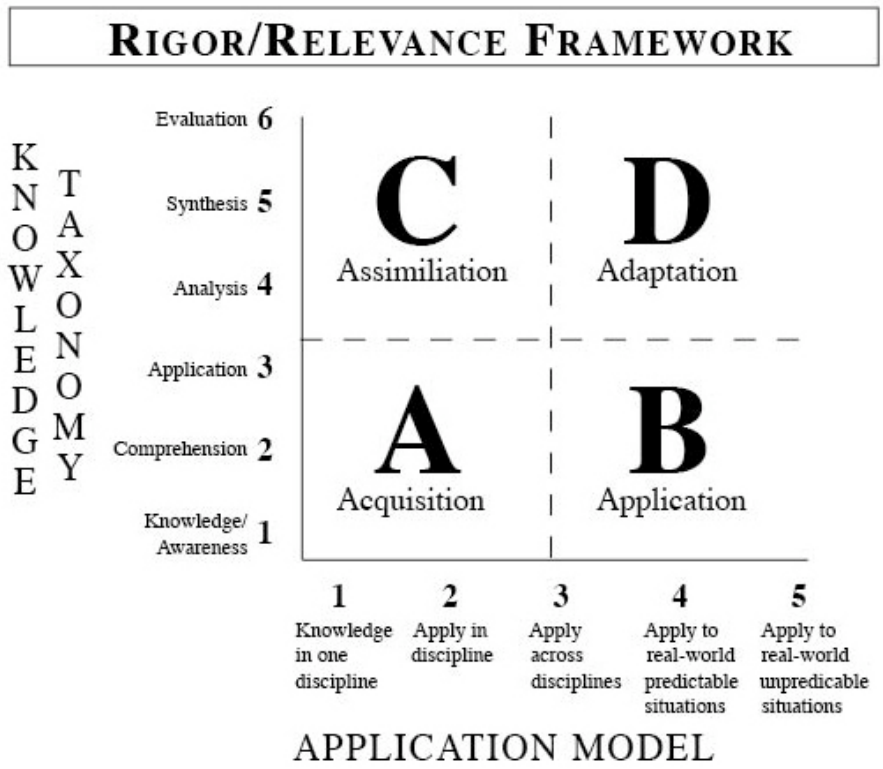
[26] Bruya, B. & Olwell, R, (December 20, 2006). Schools That 'Flow.' In *Education Week.* Available: http://www.edweek.org

- varied and cooperative roles for teachers, parents and administrators;
- reliance on teachers' descriptive evaluation of student growth, including qualitative/anecdotal observations[27]

Daggett's rigor and relevance schema[28] is useful for planning and evaluating the outcomes of planned instructional activities:

Figure 4-1 Daggett's Rigor/Relevance Framework



Charlotte Danielson (2002) suggested that to achieve good instruction, common planning time should be provided (p. 49) to establish common assessments with performance standards that are clear to the students (p. 91) and to review student work using consistent measures.[29] Others have also recommended that teachers use student work to improve

[27] Daniels, H. & Bizar, M. (2005). *Teaching the best practice way: Methods that matter, K-12*. Stenhouse Publishers

[28] Daggett, W. (2002). *Rigor and relevance handbook.* Center for Leadership in Education. Rexford, New York

[29] Danielson, C. (2002). Enhancing student achievement: A framework for school improvement. Alexandria, VA: Association for Supervision and Curriculum Development.

instruction. Langer, Colton and Goff (2003) recommend that the teachers use a reflective inquiry system (CASL--Collaborative Analysis of Student Learning) to "gain a deeper understanding of the link between their instruction and their students' learning around a standards-based target learning area."[30]

Integrating Technology: The Newest Instructional Strategy

Using technology in the instructional day is rather new to education. Computers are now reliable enough and inexpensive enough to be used on a wide scale in all schools. Federal funding through the E-rate has allowed urban schools to be just as computer savvy as suburban schools.

There are three ways to integrate technology into the curriculum. The first is to teach computer programming at the high school level. Most school districts in the United States offer courses in computer programming.

The second way to integrate technology into instruction is to use a program that has been commercially developed and integrate the use of that program into the student day. Most school districts are using the tools software included in Microsoft Office and students are proficient at graduation with using the tools software to create graphs and charts (Excel), integrate pictures, graphs, charts and text into presentations (PowerPoint), and writing (Word). Further, most school districts use commercially produced electronic workbooks of various types to help students with basic skill development (Break Through to Literacy at the elementary level, Plato or Nova Net etc. at the middle School and high school levels).

Also included in the second category are other technologies that can be utilized to improve feedback to teachers about student progress. One such technology has been piloted in the neighboring Canton City Schools with professional development provided by Pam Bernabei-Rorrer. *Education Week* recently contained an article, written by a Canton City Schools' teacher that described this technology:

> Technologies like TI-Navigator, sometimes called "personal response" systems, enable teachers to gauge whether students—not just as a group, but also individually—have grasped a math concept. Teachers then can adjust their lessons in midstream when problems persist.
>
> The approach seems to be showing results. Two years ago, this 11,000-student, largely working-class district launched a program in its middle schools to use graphing calculators in combination with TI-Navigator, both designed by Dallas-based Texas Instruments. Graphing calculators, sold by a number of companies, have been fixtures in math classes since

[30] Langer, G.M., Colton, A.B. and Goff, L.S. (2003). *Collaborative analysis of student work: Improving teaching and learning.* Alexandria, VA: Association for Supervision and Curriculum Development.

> the early 1990s. Texas Instruments officials estimate TI-Navigator is used in 2,300 of the nation's nearly 15,000 districts; other companies have developed similar technologies, industry experts say.
>
> Since schools here began using the technology, Canton's math scores in the 6th, 7th, and 8th grades on the Ohio Achievement Test, which previously lagged well below state standards, have risen, nearly doubling at some schools. Canton officials were sufficiently encouraged by those results to add TI-Navigator in the district's two high schools.[31]

Another technology tool that can be used to integrate technology into the classroom is a Smart Board. A product demonstration of a 3m Smart Board in action is available at http://products3.3m.com/catalog/us/en001/office/meeting_presentation/node_VRWLL7RGXLbe/root_GST1T4S9TCgv/vroot_GSY139HBLSge/gvel_RZT5QL0Q2Dgl/theme_us_visualsystems_3_0/command_AbcPageHandler/output_html?WT.srch=1

The third way to integrate technology into the classroom is to create opportunities for students and teachers to use the web for reactions to content through blogs or podcasts; to complete and submit assignments; and to do research and to take online courses.

The third is most problematic for teachers, schools and school districts because the more experienced teachers have not had much exposure to learning through technology, access to the web is usually limited in schools and finding appropriate content has been difficult. However, as this method of integrating technology into instruction matures, more examples will serve as models for organizing instruction. Maturity of this instructional strategy may also require that rules be developed and added to district policy manuals.[32]

Some examples of using blogs, podcasts, on-line courses and on-line classes follow:

About Blogs:

> About 300 eighth-graders at South Valley Junior High in Liberty, Mo., are blogging this fall about Guerrilla Season, a book about a 15-year-old living in Civil War-era Missouri.
>
> Book's author, Pat Hughes, is joining in the online discussion from her home in Philadelphia.
>
> "I love being able to communicate with the author because it makes me feel like I can ask anything," says Amy Lostroh, 13. "Most books you read

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[31] Cavanagh, S. (November 15, 2006). Technology helps teachers home in on student needs: Test scores have risen since middle schools started using system. *Education Week*

[32] Warlick, D. *Blog rules*. Available: http://www.edtechmag.com/k12/index2.php?option=com_content&task=view&id=376&pop=1&page=0&Itemid=133 Downloaded January 7, 2007

you have to guess how the author named the characters, why they chose to write about the topic or what inspired them."

Eric Langhorst, who teaches eighth-grade American history at South Valley, started the blog experiment last year with his class as an extra-credit assignment. It was such a success with students and parents that they expanded it to include the entire eighth grade. Miller Creek Middle School in San Rafael, Calif., has joined in.

Langhorst says the blog has been a great way to get quieter students more involved in the class. "It gives them a chance to voice their opinion, even if they're not a kid who raises their hand a lot."

"It's a way for them to be able to communicate with the author about things that puzzle them or that they're excited about," adds Hughes. Not only does she respond directly to students' inquiries, she also has been posting her own questions and even recorded a podcast for students to listen to.

The word blog - short for weblog, an online journal that can be written by many contributors - didn't even appear in the dictionary until 2005, but now even kindergarten teachers are incorporating blogs into the classroom.[33]

About Podcasts:

Fourth period on a midwinter Thursday, Christmas vacation a fading memory by now, and Lars Brownworth took his accustomed place in front of an American history class at the Stony Brook School here. He had been guiding these seniors through the Gilded Age lately, and for this session he planned to personify the era in the form of the oil tycoon John D. Rockefeller.

For 45 minutes, Mr. Brownworth deftly orchestrated lecture, discussion and archival photographs to evoke Rockefeller in both his rapacious capitalism and social conscience. When the bell rang, out shuffled the audience, a dozen teenagers who might or might not remember any of this material beyond the next exam. In its satisfactions and its limits, such was the life Mr. Brownworth, the son of teachers, had gladly chosen.

That night, though, Mr. Brownworth, 31, set to work in his own apartment, writing an essay about Alexius I Comnenus, the Byzantine emperor from 1081 to 1118. After revision and rehearsal, the text would become the script for the latest installment of Mr. Brownworth¹s podcast. And if form held, something like 140,000 listeners from Afghanistan to White Plains would hear it.

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[33] Bleimes, A. (Nov 15, 2006). Blogging now begins young. *USA TODAY.*

In barely 18 months, Mr. Brownworth[1]s podcast, “12 Byzantine Rulers” at http://www.anders.com/lectures/lars_brownworth/12_byzantine_rulers/ has become one of the phenomena of the podcasting world. A survey of 1,200 years of rather abstruse history, starting with Diocletian in 284 and finishing with Constantine XI Palaeologus in 1453, “12 Byzantine Rulers” routinely ranks in the top five educational podcasts on iTunes, and in the top 50 of all podcasts.[34]

About Online Courses:

UPPER ARLINGTON, Ohio (AP) - A high school gym teacher is offering incentives like a field trip to a yoga studio and allowing students to work out on their own time to counter the popularity of online courses, which critics say can't teach kids to exercise properly.

Some out-of-state universities offer online high school courses for up to $115, which can satisfy Ohio's physical education requirement. By submitting logs of their weekly exercise, students earn credits toward graduation.

Michael Schaefer, head of physical education at Upper Arlington High School in suburban Columbus, said the online courses can't verify that students are getting a challenging workout.

Schaefer is competing by changing the traditional gym course. So many students wanted to take the field trip to a yoga studio this month that Schaefer had to hold a lottery. The experience was what a gym class should be, he said, with an instructor in the room, correcting poor form and sweating along with his students.

Schaefer also has started offering independent study courses this year that still allow students to choose when they work out but also give them personal access to the instructor.

About 150 of Upper Arlington's 2,000 students enrolled in online gym last school year. Meanwhile, the school's gym classes have shrunk. There were about 90 students per class four years ago, Schaefer said. Now, there are 45.[35]

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[34] Freedman, S. (January 31, 2007) On education: History teacher becomes podcast celebrity. *New York Times*.

[35] *The Repository*. (December 26, 2006). Teacher combats popularity of online gym classes. *The Repository*. Available: http://www.cantonrep.com

About Online Classes:

> LOS ANGELES -- After Ben Hathaway's father was called to active duty in the Army National Guard, the 15-year-old had to help his family tend the 130 head of cattle on their 345-acre farm in Leoma, Tenn.
>
> Traditional school burned through too many daylight hours, so Hathaway started taking online classes through Lutheran High School of Orange County in Southern California, about 1,750 miles away.
>
> "Mom was having trouble running the farm by herself," Hathaway, who is taking algebra and world history online, said in a phone interview.
>
> "You can schedule everything on your own time. You don't have to sit for six hours a day -- you can do some work, go eat, play a little on the computer, and come back later and do it."
>
> Hathaway, who hopes to be a novelist, is among 1 million kindergarten through high school students enrolled in virtual schooling across the nation, according to the North American Council for Online Learning, a nonprofit organization for administrators, teachers, and others involved in online schooling.
>
> Enrollment, counted as the total number of seats in all online classes, not the number of students, has grown twentyfold in seven years, and the group expects the numbers to continue to jump 30 percent annually.
>
> To deal with the growth, the University of California is launching an extensive effort to make sure applicants' online high school courses are on par with traditional classroom instruction.
>
> Nearly half the states offer public school classes online, and last year Michigan became the first to require students to take an online course to graduate from high school.[36]

Screening Web Content to Use in Instruction:

One of the new 21st Century Skills that students will need to use is the ability to evaluate materials that are found on the World Wide Web. As Ridnouer (2006) observes,

> It takes time and care to teach students to think—to not just accept what they're told to do but to do the research, consult other points of view, ask

[36] Mehta, S. (February 18, 2007) More students across US logging on to online classrooms. *Los Angeles Times.* Available: http://www.boston.com/news/nation/articles/2007/02/18/more_students_across_us logging_on_to_online_classrooms?mode=PF

> questions, form their own conclusions, and defend those conclusions with a reasoned argument. (p. 35)[37]

Furthermore, it is very time consuming for classroom teachers to identify "safe" websites to be consulted by students. Fortunately, new websites are being developed using private funds so that content is pre-screened for teacher use. One example is Curriki.[38]

> Curriki is the result of work done for GELC - the Global Education and Learning Community - an online project started by Sun Microsystems to develop works for education in a collaborative effort. The leadership team consists of people with a long-time commitment to exploring the use of technology to improve education. More information about this can be found at http://www.curriki.org/xwiki/bin/view/Main/About.

Since 2004 when the first courses appeared on the Massachusetts Institute of Technology (MIT) open courseware website[39], funded by the William and Flora Hewlett Foundation, the Andrew W. Mellon Foundation, MIT, and the Ab Initio software company, new possibilities were available. Courses available from MIT, Johns Hopkins University School of Public Health, Tufts University and Utah State University as well as from 156 Chinese Universities and sites in France and Japan, and Vietnam allow students and teachers to keep knowledge current.

Consider the possibilities if Washington High School biology teachers could contact professors from MIT teaching Introductory Biology--Eric Lander, Director of the Broad Institute at MIT and principal leader of the Human Genome Project and Professor Robert A. Weinberg, winner of the 1997 National Medal of Science.

Observations and Recommendations

1. **Observation:** Massillon Elementary Teachers use a variety of instructional strategies to deliver the curriculum.

   Recommendation: As the classroom computers are upgraded, students at grades 3 and 4 could begin to use "tool" software as they write and prepare presentations.

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[37] Ridnouer, K. (2006). *Managing your classroom with heart: A guide for nurturing adolescent learners.* Alexandria, VA: Association for Supervision and Curriculum Development.
[38] Available: http://www.curriki.org/xwiki/bin/view/Main/About
[39] Available: http://ocw.mit.edu/OcwWeb/index.htm.

2. **Observation**: Christine Ferrell and Cali M. Turley, from the Massillon Middle School and Sharon M. Seikel of Washington High School received Smart Boards from the Timken Foundation Grant.

   Recommendation: The three teachers mentioned above, together with the Massillon City Teachers who obtained Smart Boards during the 2005-2006 school year should share their use of that technology with the rest of the faculty at their schools.

3. **Observation**: Common planning time is provided at the elementary schools and the middle school. Teachers at these levels have created common assessments and at the elementary schools do have common ways of looking at student work.

   Recommendation: Department level common assessments need to be developed grades 7-12 to be sure that students are ready to accomplish the requirements of the new Core Curriculum. It was not clear whether or not the faculty grades 5-12 have established common ways of looking at student work. If they have not done this, then it would be very helpful to establish these review standards in each content area.

4. **Observation:** Massillon Middle School and High School teachers primarily use the instructional strategies most attuned to acquisition of knowledge—lecture, memorization, and guided practice.

   Recommendation: More frequent use of instructional strategies designed to enable students to apply or adapt knowledge would provide a more lively and varied instructional climate in middle school and high school classrooms. Integrating technology into the curriculum would provide opportunities for middle and high school students to develop 21st century skills as described in the curriculum section of this study.

Summary of Findings

Massillon Middle School and High School teachers primarily use the instructional strategies most attuned to acquisition of knowledge—lecture, memorization, and guided practice. More frequent use of instructional strategies designed to enable students to apply or adapt knowledge would provide a more lively and varied instructional climate in middle school and high school classrooms. Integrating technology into the curriculum would provide opportunities for middle and high school students to develop 21st century skills as described in the curriculum section of this study.

Table 4-1: Instructional Strategies – Changing Roles

Strategy	Role of the Teacher	Role of the Student
Brainstorming	Cheerleader • Encourages participation • Is creative, has fun	Idea Generator • Thinks creatively • Makes new connections
Cooperative Learning	Parent • Prepares students in advance • Give students responsibility • Provides for equal participation	Peer Participant • Collaborates in learning process • Gives supportive feedback
Demonstration	Salesperson • Gives organized presentations • Has students replicate	Interested Observer • Watches carefully • Asks questions • Rehearses in his/her mind
Guided Practice	Coach • Sets practice rules • Ties learning goals to practice	Athlete at Practice • Remembers basic techniques • Repeats, repeats, repeats • Focuses on achievement
Inquiry	Mystery Writer • Leads to "discovery" • Provides clues • Foreshadows events	Scientist • Asks questions • Makes observations • Tests hypotheses
Instructional Technology	Pilot • Integrates technology • Is knowledgeable about systems • Monitors learning systems	Explorer • Follows new paths to learning • Uses technology • Shares with others
Lecture	Expert • Directs thinking • Shares knowledge • Evaluates students	Listener • Pays attention • Relates to previous knowledge • Organizes knowledge
Memorization	Magician • Teaches "tricks of the trade" • Creates new tricks	Sorcerer's Apprentice • Copies traditional techniques • Experiments with new tricks
Note-taking/ Graphic Organizers	Master Mechanic • Knows right tool for the job • Provides important information • Teaches how to use the tools	Artisan • Captures ideas • Uses fundamental tools • Expresses personal creativity

Strategy	Role of the Teacher	Role of the Student
Presentations/ Exhibitions	Olympic Judge • Establishes ideal performance • Evaluates students	Speaker • Shows well researched preparation • Has good platform skills • Informs the audience
Problem-based Learning	Coach • Presents problem situation • Encourages skill development • Supports students in the process	Detective • Analyzes the situation • Makes detailed observations • Seeks solutions
Project Design	Consultant • Provides background on project • Sets design specifications • Advises on process	Engineer • Examines the design specifications • Designs solutions • Tests solutions
Research	Resource Person • Teaches problem-solving • Poses problems • Translates into students' world	Scientist • Poses problems • Collects evidence • Organizes information
Simulation/ Role-playing	Stager • Manages the situation • Sets simulation/game in motion • Watches from the wings	Player • Focuses on the goal • Plays role with enthusiasm • Strives to improve
Socratic Seminar	Travel Agent • Enables learning from group • Guides group's journey	Journalist • Gathers and analyzes information • Organizes thoughts and ideas • Expresses ideas clearly
Teacher Questions	Conductor • Orchestrates learning • Guides performance	Expert • Responds to questions • Seeks new information
Work-based Learning	Navigator • Guides students • Shows students "destination" • Connects school and work	Apprentice • Models the master worker • Develops habits of the jobs • Seeks to improve constantly

Table 4-2: Instructional Strategies and the Rigor/Relevance Framework

Strategy	Acquisition Quadrant A	Assimilation Quadrant C	Application Quadrant B	Adaptation Quadrant D
Brainstorming	★★	★★★	★	★★★
Cooperative Learning	★★	★★	★★★	★★★
Demonstration	★	★	★★★	★★
Guided Practice	★★★	★★	★★	★
Inquiry	★	★★★	★★	★★★
Instructional Technology	★★	★★★	★★★	★★★
Lecture	★★★	★★	★	★
Memorization	★★★	★★	★★	★
Note-taking/Graphic Organizers	★★	★★	★★	★★
Presentations/Exhibitions	★	★★	★★	★★★
Problem-based Learning	★★	★★	★★★	★★★
Project Design	★	★	★★★	★★★
Research	★★	★★★	★	★★★
Simulation/Role-playing	★★	★★	★★★	★★★
Socratic Seminar	★	★★★	★	★★★
Teacher Questions	★★	★★★	★	★★★
Work-based Learning	★★	★★	★★★	★★★

Key ★★★ Ideal Strategy
★★ Appropriate Strategy
★ Least Appropriate Strategy

PROFESSIONAL DEVELOPMENT

The research suggests that when professional development efforts are focused on a few key elements, such as improving classroom feedback, assessment practices, and cross-disciplinary nonfiction writing, the yield in student achievement is significantly greater than when professional developers yield to the "flavor of the month" approach in which fads replace effectiveness. – Douglas Reeves (2006) p. 79[1]

Introduction

The author met with Kathy Nolan on December 11, 2006. As requested, Kathy presented a Massillon City Schools Professional Development Opportunities (Partial list) 2006-2007 (see end of this chapter).

Details of the following programs were also shared:

- District-Wide Literacy Initiative Materials
  - Ongoing Professional Development
    - Primary Academy
    - Guided Reading/Writing
    - Four Blocks to Literacy Training
    - Content Area Reading
- Literacy Specialist Coaching Materials from Ohio Department of Education
- *Breakthrough to literacy: The new three Rs—Research, reading and results.* Coralville, IO: Wright Group McGraw-Hill

The author met with Peggy Schafer on February 12, 2007. Peggy has temporarily replaced the Federal Programs director who retired in December 2006. Peggy pointed out that individual professional development is often paid through one of the grants.

This chapter has the following sections: Review of the literature: Professional Development, Observations and Recommendations, and Summary of Findings.

[1] Reeves, D.R. (2006). *The learning leader: How to focus school improvement for results*. Alexandria, VA: Association for Supervision and Curriculum Development.

Review of Literature: Professional Development

There are seven major models of professional development:

1. Training—usually results in use of new strategies in the classroom[2]
2. Observation/assessment—peer coaching or clinical supervision.[3]
3. Involvement in a development/improvement process—review a curriculum, plan new instructional procedures, review research often through partnerships with universities.[4]
4. Study Groups—principal and staff find solutions to a problem like improving quality of student writing, or to do continuous improvement planning, or to implement curricula innovation.[5]
5. Inquiry/action research—five steps—select problem, collect information, study literature, determine possible actions, take action[6]
6. Individually guided activities—individuals set up a plan and select professional development activities that fit the plan. Often a portfolio is developed to document the value of the activities. [7]
7. Mentoring—pairs an experienced practitioner with a new comer to the profession. Often used to orient new teachers.[8]

Three overall designs exist for professional development:[9]

1. Districtwide designs
2. Site-based designs
3. Integrated designs

The most effective design is the integrated design where professional development is seen as part of the normal activities of the school district.[10]

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[2] Joyce, B., & Showers, B. (1995). Student achievement through staff development: Fundamentals of school renewal (2nd ed.). New York: Longman.
[3] Showers, B., & Joyce, B. (1996). The evolution of peer coaching. *Educational Leadership, 53*(6). 12-16.
[4] Gutskey, T. R., & Peterson, K.D. (1996). The road to classroom change. *Educational Leadership, 53*(4). 10-14.
[5] Murphy, C. (1997). Finding time for faculties to study together. *Journal of Staff Development, 18* (3). 71-74.
[6] Calhoun, E. F. (1994). *How to use action research in the self-renewing school*. Alexandria, VA: Association for Supervision and Curriculum Development.
[7] Dietz, M. E. (1995). Using portfolios as a framework for professional development. *Journal of Staff Development, 16* (2), 40-43.
[8] Sparks, D., & Hirsh, S. (1997). *A new vision for staff development*. Alexandria, VA: Association for Supervision and Curriculum Development.
[9] Gutskey, T.R. (2000). *Evaluating Professional Development*. Thousand Oaks, CA: Corwin Press.
[10] Gutskey, T.R. (2000). *Evaluating Professional Development*. Thousand Oaks, CA: Corwin Press.

Since the beginning of the implementation of the No Child Left Behind (NCLB) legislation, school districts and states have become very involved with professional development. Most of the professional development has been the training model and has followed a district-wide design.

In most states, including Ohio, most of the state and local professional development has been at the pre-K through grade 5 level, usually focused on reading and/or language arts. It is likely that this focus resulted from the "scientifically based reading programs" that were recognized in the beginning of the NCLB legislation.

Moreover, it is possible that the focus of the staff development was to counter the problem of "scale" that has been described by many. Richard Elmore's description of this problem follows:

> The problem of scale in educational innovation can be briefly stated as follows: Innovations that require large changes in the core of educational practice seldom penetrate more than a small fraction of US schools and classrooms, and seldom last for very long when they do. (p. 8)[11]
>
> A more subtle but far more important lesson is that institutional change—including changes in the rhetoric of policy and in the accompanying regulatory superstructure—does not necessarily result in educational improvement. Shifts in policy improve teaching and learning only if they are accompanied by systematic investments in the knowledge and skills of educators. (p. 211)[12]

This author thinks that the reason that professional development doesn't usually result in change is that there is usually not an overall district framework for thinking about the change. For example, if the successful person in 2025 will be required to manipulate knowledge to discover new things, then that person needs a pre-K-14 education that is not just focused on the acquisition of new knowledge, but is also focused on the higher levels of thinking allowing the acquired knowledge to be manipulated.

One such framework is Daggart's schema depicted in the following Rigor/Relevance Framework.[13] If professional development were evaluated using Daggart's schema or some other overarching framework, then all would have the same vocabulary and frame of reference for thinking about whatever change is to be made.

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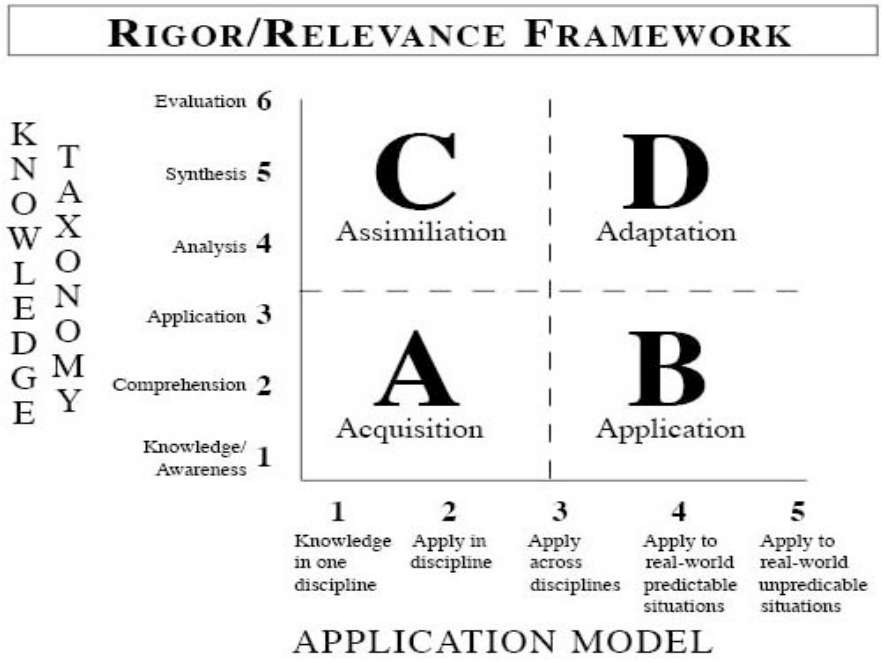
[11] Elmore, R.F. (2005). *School reform from the inside out: Policy, Practice, and Performance*. Cambridge, MA: Harvard Educational Press

[12] Elmore, R.F. (2005). *School reform from the inside out: Policy, Practice, and Performance*. Cambridge, MA: Harvard Educational Press

[13] Daggett, W. (2002). *Rigor and relevance handbook.* Center for Leadership in Education. Rexford, New York

Figure 5-1: Daggett's Rigor/Relevance Framework



What is also true about professional development is that district and school focus is usually on improving test scores or attempting to meet new mandates from the federal or state governments. There is only so much time in the school year and the immediate planning usually supercedes a future focused planning model. It is often seen as risky to develop a local model for fear that it will not account for all of the requirements of the accountability system used to evaluate the school district.

School districts and schools usually have problems funding, scheduling, and institutionalizing professional development. Often the funding for the professional development is grant funded and does not have teaching staff commitment because the grant was written by the central office without the input of a broad based committee representing all members of the teaching staff.

Danielson (2002) recommends that teachers help to design professional development (p. 66) as a way of getting staff commitment to the professional development process.[14] One way to accomplish staff commitment might be to establish a "guiding coalition" as described and recommended by Kotter (1995).[15] The following figure puts the guiding coalition in the context of leading change:

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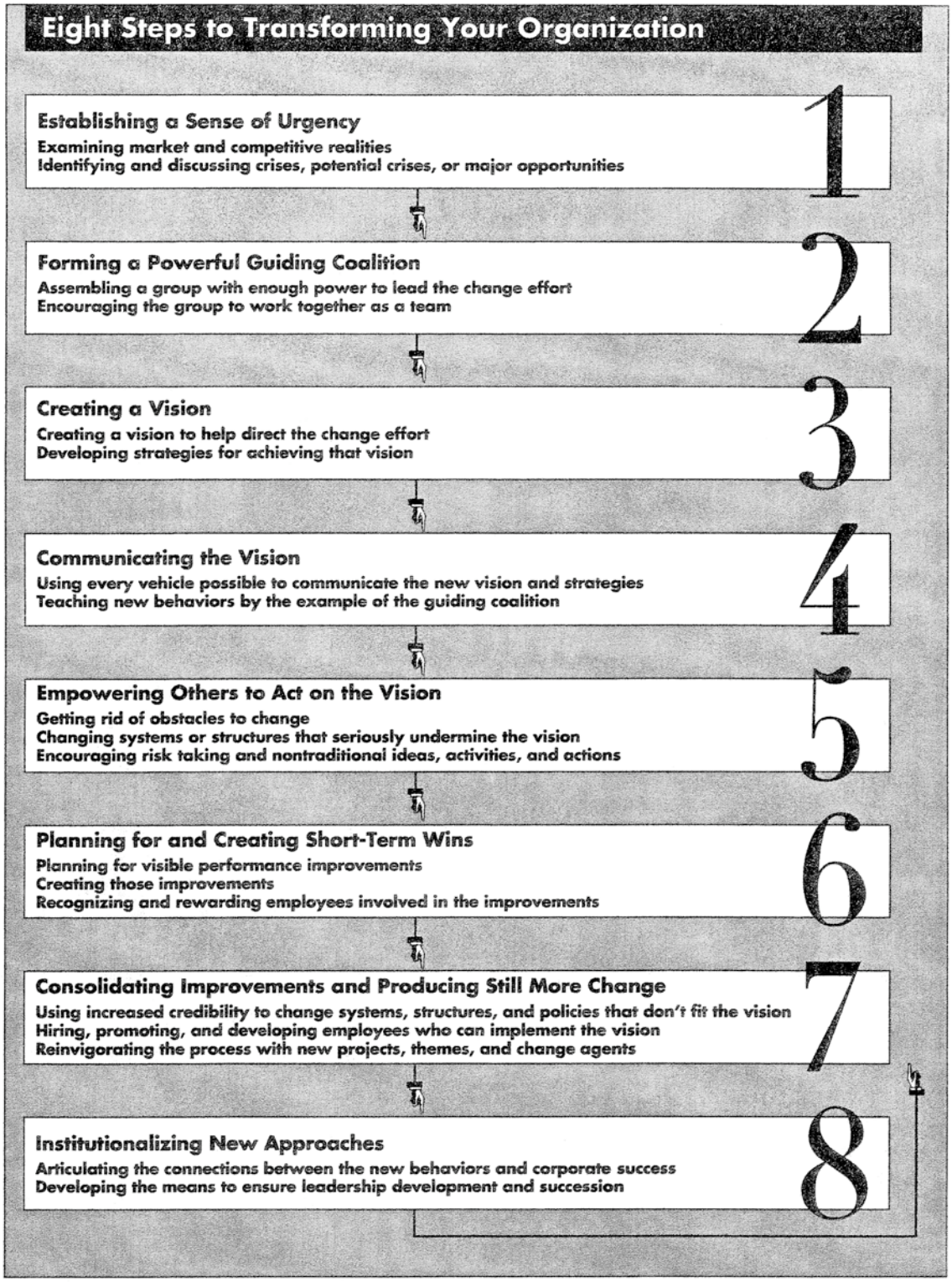
[14] Danielson, C. (2002). *Enhancing student achievement: A framework for school improvement.* Alexandria, VA: Association for Supervision and Curriculum Development.

[15] Kotter, J.P. (1995). Leading Change: Why transformation efforts fail. *Harvard Business School Review*.

Figure 5-2: John Kotter's Eight Steps to Transforming Your Organization



Danielson (2002) also recommends that a common planning period be established (p. 49) so that faculty can establish common assessment and review student work as a part of the professional development experience.[16] As one visits schools in the United States, it is not unusual to find common planning times at the elementary and middle schools in a given school district. While expensive to establish common planning times, the outcomes are often seen as worth the costs. However, one is less likely to find common planning times at the high school level given the department teaching schedules.

During the school day pull-out professional development programs are also likely to be found in United State's schools. These programs are often criticized because the overall instructional mission related to classroom instruction is interrupted with these programs.

Observations and Recommendations

Professional Development K-4

Observations: Most of the district-wide professional development K-4 uses a training model and is based upon a system developed by the Ohio Department of Education (Core Literacy). Teachers are pulled out during the day or meet after school to participate in the training.

Most of the school or site based professional development is done during the school day and centers on the quarterly assessments and finding or implementing supports for those students who are having difficulties with mastering the standards.

Recommendations:

1. The system for K-4 professional development needs to be integrated so that professional development at the district level and the school level all goes together and can be articulated in the same manner by all.
2. A transition plan for professional development both district-wide and school wide needs to be articulated from grade 4 to grade 5.

Professional Development Grades 5-8

Observations Grades 5-8: Most of the district-wide professional development 5-8 uses a training model and is based upon a system developed by the Ohio Department of Education (Core Literacy). Teachers are pulled out during the day or meet after school to participate in the training.

[16] Danielson, C. (2002). *Enhancing student achievement: A framework for school improvement.* Alexandria, VA: Association for Supervision and Curriculum Development.

Most of the school or site based professional development is done during the school day and centers on the planning of lessons and the use of time in the core content block, quarterly assessments, and finding or implementing supports for those students who are having difficulties with mastering the standards.

Recommendations:

1. The system for 6-8 professional development needs to be integrated so that professional development at the district level and the school level all goes together and can be articulated in the same manner by all.
2. A transition plan for professional development both district-wide and school wide needs to be articulated grades 4-5 and grades 8-9.
3. A professional development plan directed at enlivening the instruction used, integrating technology into instruction and expanding the number of students on track for a college access curriculum needs to be developed.

Professional Development Grades 9-12

Observations Grades 9-12: Most professional development at the high school level is departmental and content based.

Recommendations:

1. A broader plan needs to be developed in order to prepare for the required Ohio Core courses and to broaden and enliven the instructional strategies in use at the high school level.
2. A transition plan needs to be developed for grades 8-9 and grades 12-14.

Summary of Findings

Professional development needs to have an articulated, integrated program that includes previously planned district professional development as well as site based professional development determined by principals and staff to meet identified school improvement goals. Further, at the middle and high school levels, professional development to enliven instruction, integrate technology and prepare more students to go on to college, at least through grade 14, needs to be developed.

2006-2007 Massillon City Schools
Professional Development Opportunities *(Partial List)* – Written by *Kathy Nolan, Curriculum Director* *(December 2006)*

> "Teaching is choosing the right skills [strategies] based on an astute observation of the child's needs. Good teachers know the interests and passions of their students and know how to put good books [materials] in their hands." – Donald Graves

This past June, the curriculum department came together to do an analysis of the most recent state testing data. After going through each grade level, item by item, we surmised that overall, we are doing very well in some areas such as vocabulary and math. However, not so well in other areas specifically, teaching reading comprehension strategies. The **reading process** area of each test came up as a need to be addressed. Additionally, those teachers having attended the core literacy training this past school year also identified "reading roadblocks" and requested specific teaching strategies to overcome those roadblocks of hard to teach, difficult to learn strategies. We have spent a great deal of time working with our common assessment procedure and have a wealth of very rich and valuable data. **Now the question before us is, "What do we do with what we know?"** Based on our observations and staff input, strategic reading emerged as one of our focuses for our professional development this year.

In writing, we recognized the need to look more closely at the instruction of grammar, publication of work and poetry writing and analysis. These areas will continue to be addressed through the writers' craft curriculum and subsequent writing related workshops. In math, we recognized, especially at grade 4, that we have some alignment issues with which to deal. Transitions from grades 2 to 3 and 3 to 4 are a focus of study. We will be working closely with Heather Lash, consultant, on those and other issues during this upcoming school year. She will be able to consult with us up through grade 6.

The new district report card is in draft form and ready to be rolled out to each of you to analyze and decide if you want to be a part of a pilot study of its use this upcoming school year. That will happen at the first late start day in September.

And, we had such a wonderful response to the "Studio Workshops" which really work to enhance good teaching strategies, that we feel it's important to bring those back to you. With all of this said, we want you to know that we are using the data and listening to you to set the course for our professional development during the upcoming school year. To date, we have the following opportunities planned and want to get the dates out to you so that your planning can be made a bit easier.
This is an exciting school year and one that holds a great deal of promise for each of us but most importantly, for the students we serve. Please take some time to look over the dates and offerings and try to be a part of those that you feel will help you be a better classroom teacher. Sustained improvement is continuous and happens over time

with a comprehensive vision of where we need to be and how we are going to get there. You have proven after this past school year that you are capable of great things. The sky's the only limit to how far we can go! Have a great year!

Dates/Events

Bowers Core Literacy Study
September 19
October 17
November 21
December 19
January 15
February 20
March 13
April 17
May 22

Pre-school Core Literacy Study
September 29
October 27
November 3
December 8
January 26
February 23
March 2
April 27
May 18

(All core literacy studies will occur during the school day with release time. Exact times and locations, TBA)

Franklin/Emerson Returning Core
September 5
October 10
November 28
January 9
February 27
April 24

Middle School Returning Core
September 26
November 7
January 23
March 6
April 3
May 8

Middle School New Core Literacy Study
September 13
October 11
November 15
December 13
January 10
February 14
March 14
April 18
May 9

Principals' Academy
September 27
November 28
December 19
January 24
March 28
June 20

New Teacher Academy (0-1 years experience and will be held after school)

September 20	February 21
October 18	March 21
November 15	April 18
December 13	May 16
January 17	

Moon Journals (poetry, writing and art studio for grades 2-8 held after school. More details to follow.)

September 21	October 19
September 28	October 12
October 26	November 2

Writers Craft Part B (This is the second part of the craft workshop which began last school year) It will be held during the second half of the year so that you can begin the year with the already presented curriculum. (Refer to your writers' notebooks, please)

January 8	April 23
February 12	May 14
March 12	

Late starts will be shared between district and building focuses.

September 12 – District focus

Grades K will come together to begin a discussion on the development of a new kindergarten report card

Grades 1-4 new report cards will be rolled out (Specific location/time details to follow) Middle School/High school details provided by building principals

November 14 – Building focus

February 13 – District focus, continued discussion of the new report cards

May 15 – Building focus

October 9 – In-service Day

Kindergarten will come together for a full day of work on the new report card Grades 1-4 will have 1/2 day of work on strategic reading strategies with Dr. Ethna Reid of the "Exemplary Center for Reading Improvement" The other half day will be work done again with the report card/grading procedure More details will follow all of these items in monthly curriculum newsletters. Please post these dates and keep them handy as you are doing your planning.

This is a partial list of opportunities. Additional art studios are being planned but do not have dates yet. We will be getting these out to you as soon as they are set.

CONTINUOUS IMPROVEMENT

Here is the curious finding of the research: If you believe that adults make a difference in student achievement, you are right. If you believe that adults are helpless bystanders while demographic characteristics work their inexorable will on the academic lives of students you are right. Both of these statements become self-fulfilling prophesies.

Douglas Reeves (2006)[1]

Introduction

The author met with Mark Fortner, Washington High School Principal, on December 9, 2006 and on that day received a copy of Washington High School's Continuous Improvement Plan. Kathy Nolan, Curriculum Director, provided copies of all other continuous improvement plans on December 12, 2006 and a copy of a chart entitled "District Performance Index—Four Year Trend by Schools." Mel Lioi, Assistant Superintendent, Stark County Educational Service Center, provided a copy of the Partnership Plan on January 8, 2007.

Elementary and Middle School Data:

Kathy Nolan, Curriculum Director, provided the following:

- District and School Test Results (except High School)
  Passage Rates—Grade 2 Terra Nova Math, 5 years
  Passage Rates—Grade 3 OAT Math, 2 years
  Passage Rates—Grade 4 Proficiency/OAT Math, 5 years
  Passage Rates—Grade 2 Terra Nova Reading, 5 years
  Passage Rates—Grade 3 OAT Reading, 3 years
  Passage Rates—Grade 2 Terra Nova Writing, 5 years
  Passage Rates—Grade 4 Proficiency/OAT Writing, 5 years
  Passage Rates—Grade 5 OAT, 2 years
  Passage Rates—Grade 6 Proficiency/OAT, 5 years
  Passage Rates—Grade 7, OAT, 2 years
  Passage Rates—Grade 8, OAT, 2 years
- Diagnostic Reports—Value Added
- Massillon City Schools Assessment Procedures Grades K-6 206-2007—includes detailed instructions and dates for quarterly assessments.

Please Note that all K-8 data is discussed in the sections entitled Elementary Schools and Middle School

[1] Reeves, D.R. (2006). *The learning leader: How to focus school improvement for results*. Alexandria, VA: Association for Supervision and Curriculum Development.

High School Data:

Mark Fortner provided the following:

- ACT Results for five years
- High School Graduation Rate for three years
- 2005-2006 Graduation Test Results
- Advanced Placement Results 2005-2006
- Washington High School Report Card

Theresa Emmerling, Treasurer, provided the Post-Secondary Enrollment Data

The author added data that have been collected by the Stark Education Partnership:

- Massillon City Schools College Going Rate in Ohio (2003)
- Summer Scholars enrollees, Summer 2005
- Career Tech Program Enrollments Stark County
- Career Technical Performance Profile

Please note that all high school data are discussed in the section of this study entitled Washington High School.

District Data:

Kathy Nolan provided the following Data:

- District Report Card 2005-2006
- District Report Cards 2005-2006 for two districts in comparison group: Ironton and Barberton
- School Improvement Plans
- Chart of Performance Index Four Year Trend (Please note that this chart was revised by the author to reflect the top score of 120)

The author also looked at the Massillon City Schools data on the Great Schools[2] website.

Fred Blosser, Superintendent, provided a copy of the 2005-2006 District Data Committee Portfolio including sections on:

- Staffing
- Resources
- Transportation/Safety
  - Bus Discipline—Behavior Reports/Referrals
  - Program Discipline—Out-of-School Suspension/In-School Suspension/Alternate School

[2] Available: http://www.greatschools.net/

- Technology
  - Student Survey of mastered skills
- Appendix A—District and School Report Cards
- Appendix B—District Data Committee Minutes and PowerPoint Presentations

This chapter includes the following sections: Review of the Literature: Continuous Improvement; Observations and Recommendations; and Summary of Findings.

Review of Literature: Continuous Improvement

The Quality movement has had profound implications in the corporate world. Several years ago the Ohio State Department of Education received a grant to incorporate the Baldrige model into the education process in Ohio school districts. State support for the model ended when the grant ended. However, the thinking behind the State Department of Education required continuous improvement planning process has its roots in this model.

Another quality process used by many national as well as Ohio companies is called Six Sigma:

> Six Sigma at many organizations simply means a measure of quality that strives for near perfection. Six Sigma is a disciplined, data-driven approach and methodology for eliminating defects (driving towards six standard deviations between the mean and the nearest specification limit) in any process -- from manufacturing to transactional and from product to service.
>
> The statistical representation of Six Sigma describes quantitatively how a process is performing. To achieve Six Sigma, a process must not produce more than 3.4 defects per million opportunities. A Six Sigma defect is defined as anything outside of customer specifications. A Six Sigma opportunity is then the total quantity of chances for a defect.
>
> The fundamental objective of the Six Sigma methodology is the implementation of a measurement-based strategy that focuses on process improvement and variation reduction through the application of Six Sigma improvement projects. This is accomplished through the use of two Six Sigma sub-methodologies: DMAIC and DMADV. The Six Sigma DMAIC process ….is an improvement system for existing processes falling below specification and looking for incremental improvement.

Figure 6-1: DMAIC Methodology

The DMAIC methodology breaks down as follows:
Define the project goals and customer (internal and external) requirements.
Measure the process to determine current performance.
Analyze and determine the root cause(s) of the defects.
Improve the process by eliminating defect root causes.
Control future process performance.

DMADV Design for Six Sigma for new product/service introduction.

The DMADV methodology includes:
Define, Measure, Analyze, Design, Verify.[3]

Six Sigma is now being applied in more arenas than the corporate world. Edward J. Roth, the President and CEO of Aultman Hospital, has worked with his staff to apply Six Sigma to the health care environment. He reports great success with this model.

This author is not aware that Six Sigma has been applied in a direct way in the education world. However, the process does have applicability. Thinking about eliminating defects in education would lead one to the conclusion that 3 drop outs per million students would be a desired outcome. 100% high school graduation rates would be a desired outcome. Most importantly, the continuous improvement process would include an analysis of the design of the processes in place to get to continuous improvement.

Critiques of Static Planning Processes:

All too often instead of employing system thinking to address the issues of complexity within schools and school districts, producing documents becomes the order of the day. Strangely enough, these documents harm student achievement.

> There is a new religion spreading like wildfire in school systems and state departments of education. The religion is "Documentarianism" and, with missionary zeal, its adherents believe that with just the right school improvement plan, or the right format, or with all the boxes completed in

[3] *Six Sigma - What is Six Sigma? Availiable:* http://www.isixsigma.com/library/content/six_sigma_dmaic_quickref_define.asp#deliverables

all the right places, the deity to whom they pray will grant educational miracles. Perhaps because it is easier to monitor two-dimensional planning documents than it is to review the implementation of initiatives in the complex, real world of schools, regulatory authorities at all levels appear to be consumed with documentary compliance.

The devotion to plans and procedures not only destroys forests with its endless printed documents, but, as the evidence will show, it also harms student achievement.

In their (Prichard Committee 2005) review of successful high-poverty schools in Kentucky, researchers found that these schools achieved great success through a common set of professional and leadership practices, but low scores on conforming with planning format requirements.[4]

Theory of Action: The foundation world has given us a pattern of thinking about making change or improvement that begins with setting forth the desired goal, stipulating the strategies that will be used to get there and then measuring to see if the goal was attained.

Robert Kronley, a national consultant hired by the Stark Education Partnership, led Stark County Educational Service Center, Superintendents and Curriculum Directors through a process during the 2002-2003 school year that resulted in a Stark County Theory of Action (see "Toward a Theory of Coherence" at the end of this chapter).

Since that time, the theories of action used by foundations to engage in district reform have become more sophisticated. A good example is provided by the Stupski Foundation (see "Theory of Action for District Reform" at the end of this chapter).[5]

The Gates Foundation use a theory of action to describe and measure the small schools work that they funded beginning in 2000. The measurements told them that "small" was not the answer—student achievement needs to be the first line of focus. Funding in 2006 emphasized student achievement and then small.[6]

Complexity of Today's School Systems: The new focus of Gates funding is to school districts, not schools. This new direction is based upon findings related to the small school results as well as the work of the New England Complex Systems Institute (NECSI) sponsored by Boeing, the National Science Foundation, National Institutes of Health, and Microsoft Research.

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[4] Reeves, D.R. (2006). *The learning leader: How to focus school improvement for results*. Alexandria, VA: Association for Supervision and Curriculum Development. p. 61, p. 62, 64

[5] Stupski Foundation (2006). Aligning an instructional system to close the gap: Illinois school district U-46. Mill Valley, CA: Stupski Foundation. Available: http://www.stupski.org

[6] Geballe, B. (2005). *Bill Gates' guinea pigs. Seattle Weekly* and *Village Voice Media*. info@seattleweekly.com July 20 - 26, 2005

What has been recognized is that educational systems in today's world are complex systems with "multiple interacting components whose collective behavior cannot be simply inferred from the behavior of the components."

> The educational systems of advanced societies are highly complex, consisting of many components that interact at multiple layers of organization and at different time-scales. The multiplicity of these components and of their loci of control, the diverse nature of the stakeholders—who range from students and their parents to their elected representatives in cities and towns, states and the Federal government—the richness of interactions among these groups, are all essential components of the system's functioning and must be part of any attempts to support, reform or improve it.[7]

Reeves (2002) has recommended that complexity be distilled down to the "Rule of Six" i.e. that effective leaders can only monitor six priorities at a time.[8]

Again, foundations have been helpful in looking at this issue. The Stupski Foundation provides a pictorial example of how to create a district aligned system. (See "A Comprehensive District Aligned Instructional System" at the end of this chapter).[9]

Using Multiple Measures of Data: Victoria Bernhardt has written extensively since 1999 on the topic of using data as a means to improve student achievement. Her latest books show how to improve student achievement in high schools (2005),[10] middle schools (2004),[11] and elementary schools (2003)[12]. The message of the books is the same:

> Data analysis should not be about just gathering data. It is very easy to get "analysis paralysis" by spending time pulling data together and not spending time using the data (p. 19).[13]

The many uses of multiple measures of data (p. 11) are depicted as follows:[14]

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[7] From a report by Jim Kaput, Yaneer Bar-Yam, Michael Jacobson, Eric Jakobsson, Jay Lemki, Uri Wilensky and other collaborators. *Two roles for complex systems in education: Mainstream content and means for understanding the education system itself*. Available: http://necsi.org/events/cxedk16/cxedk26_0html.

[8] Reeves, D.B. (2002). *The daily disciplines of leadership: How to improve student achievement, staff motivation and personal organization*. San Francisco: Jossey-Bass.

[9] Stupski Foundation (2006). Aligning an instructional system to close the gap: Illinois school district U-46. Mill Valley, CA: Stupski Foundation. Available: http://www.stupski.org

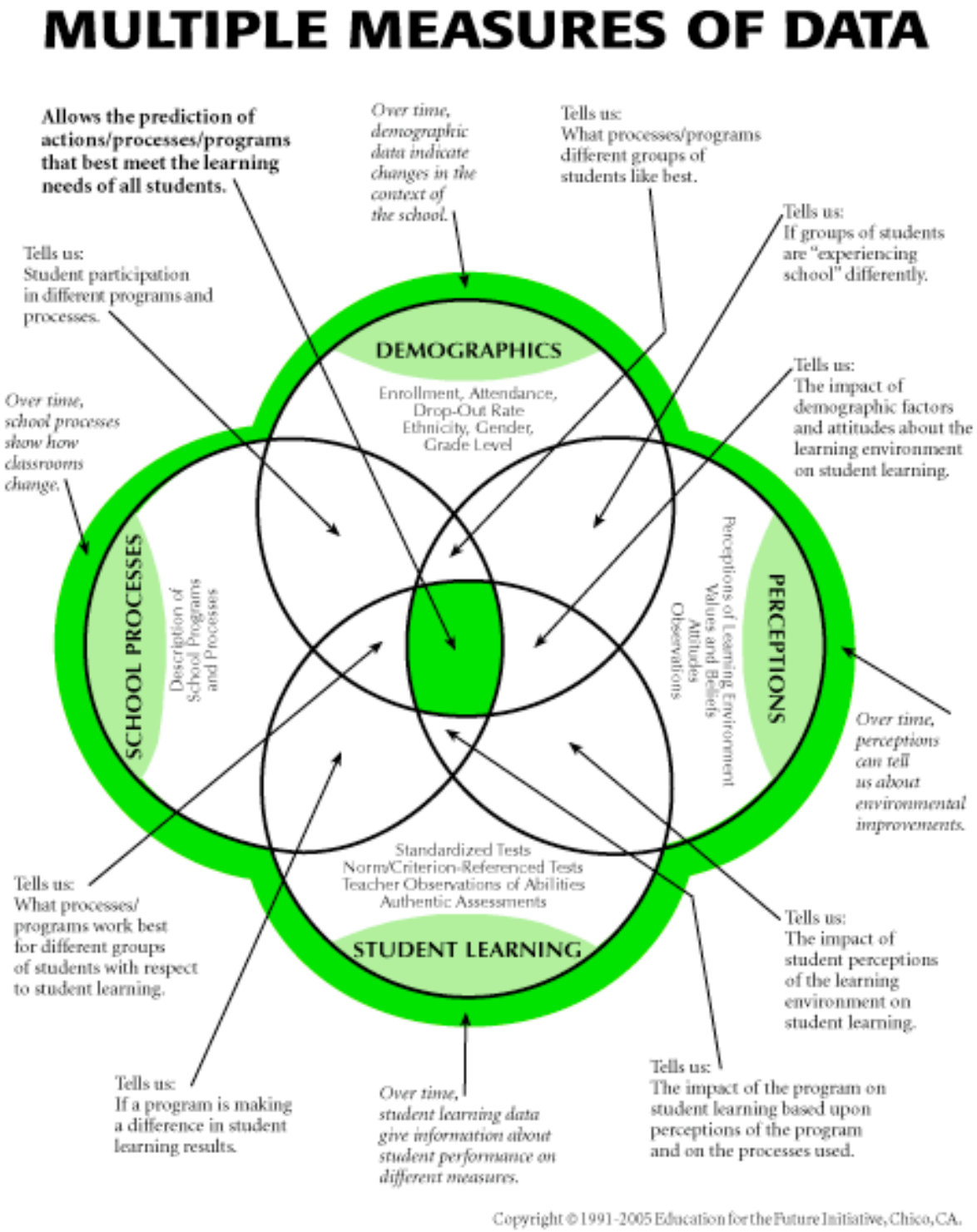
[10] Bernhardt, V. L. (2005). *Using data to improve student learning in high schools*. Larchmont, NY: Eye on Education.

[11] Bernhardt, V. L. (2004). *Using data to improve student learning in middle schools* Larchmont, NY: Eye on Education.

[12] Bernhardt, V. L. (2003). *Using data to improve student learning in elementary schools* Larchmont, NY: Eye on Education.

[13] Bernhardt, V. L. (2005). *Using data to improve student learning in high schools*. Larchmont, NY: Eye on Education.

Figure 6-2: Multiple Measures of Data



[14] Bernhardt, V. L. (2005). *Using data to improve student learning in high schools*. Larchmont, NY: Eye on Education.

Observations and Recommendations

Observation: It is very difficult to obtain the data necessary to drive improvement in the Massillon City Schools because it is located in so many different places. Further, data are not analyzed, nor are targets suggested for improvement. Thus, it is difficult for the superintendent to implement Policy 2114, Meeting State Performance Indicators, and develop a plan that "outlines the steps the District needs to take if at least the required percentage of students is to meet or exceed the performance levels established by the State Board of Education for each of the performance indicators."

Recommendation: Data management needs to be improved. A revised data management book (please see Data Book Outline in Appendix IV) needs to be created that is solely purposed to provide data to allow the principals and their staffs to drive toward continuous improvement. One major change would be to track student performance from one grade level to the next and allocate resources based upon student need. At the elementary school level, special education and gifted students should be assigned back to the school of origin for the purposes of determining overall school scores. The IRN numbers for Franklin and the Middle School should be changed to reflect that these schools were both reconstituted.

Observation: School and District Continuous Improvement Plans do not contain specific targets for improvement during the 2006-2007 school year. The 2006-2007 continuous improvement plans do not show a relationship to 2005-2006 data and specific strategies to be used for improvement are not listed.

However, visits to the schools and conversations with the principals made it clear that some of the principals, specifically at Smith and Whittier, had set targets in the previous school year and had exceeded those targets through specific processes and strategies that they worked out with their staff. In fact, the processes at Smith and Whittier are examples of the six sigma improvement process.

Using those examples, the chart entitled "Statistics at a Glance" created by this author, a revision of the existing Massillon City Schools Theory of Action entitled "Achievement for All Students" (see document at the end of this chapter), and the revised District Performance Index—Four Year Trend by Schools, a continuous improvement planning process were discussed with the principals by the curriculum director. The continuous improvement plans were revised in January 2007.

Nothing about the new continuous improvement plans resembles "Documentarianism." Instead, the plans were developed by the teachers and the principals working together in recognition of the Kouzes and Posner findings from studies of more than one million leaders--the trust and credibility that stem from meaningful relationships are essential for leadership success.[15] Further, the principals exhibit their knowledge of Reeves' findings:

[15] Kouses, J.M. & Posner, B.Z. (2000). *The five practices of exemplary leadership: When leaders are at their best*. San Francisco: Jossey-Bass.

> Leverage for improved organizational performance happens through networks, not individuals. If the only source of inspiration for improvement is the imprecations of the individual leader, then islands of excellence may result and be recognized, but long-term system wide improvement will continue to be an illusion.[16]

Recommendation: The district needs to create data management tools that allow quick looks at the results thereby allowing action to be determined. Table 6-1 and Table 6-2 as well as Chart 6-1 are examples of this recommendation.

Table 6-1: Special Education Placement Rates

Name of School	06-07 Nov Enrollment	Special Education Enrollment	Special Education Placement %
Bowers Elementary	173	35	20.2%
Emerson Elementary	217	38	17.5%
Franklin Elementary	398	39	9.8%
Gorrell Elementary	391	53	13.6%
Smith Elementary	244	32	13.1%
Whittier Elementary	357	24	6.7%
Elementary Sub-Total	*1,780*	*221*	*12.4%*
Massillon Middle School	1,306	259	19.8%
Washington High School	1,364	299	21.9%
Total	*4,450*	*779*	*17.5%*
District	*4,550*	*930*	*20.4%*
National Urban Special Education Placement Rate			*16.0%*

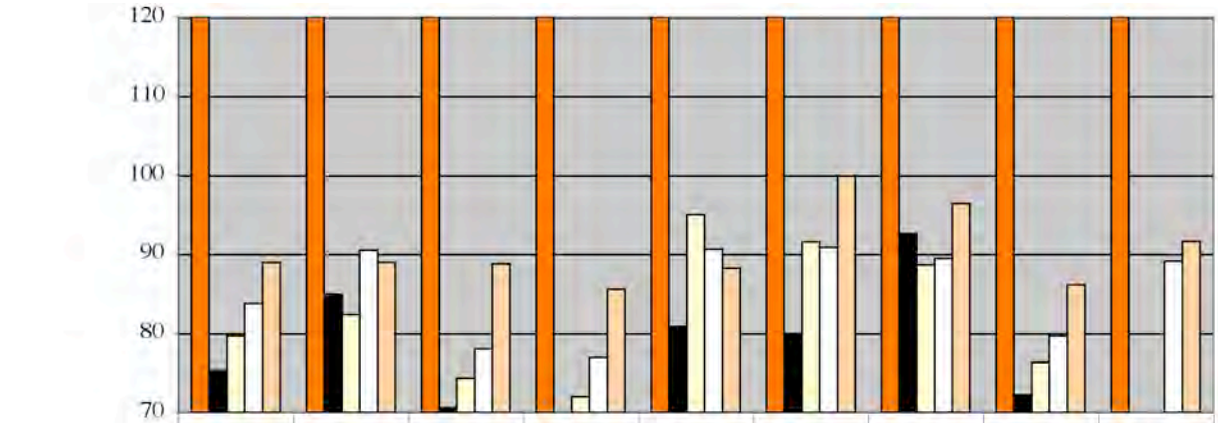
[16] Reeves, D.R. (2006). *The learning leader: How to focus school improvement for results*. Alexandria, VA: Association for Supervision and Curriculum Development. p.52

Table 6-2: Statistics at a Glance

	Name of School	06-07 Nov Enrollment	Special Education Enrollment	% Free & Reduced Lunch Oct 06	05-06 Performance Index Score	05-06 Rating	05-06 Met AYP	05-06 # of Indicators Met
Elementary	Bowers	173	35	53.71%	88.9	Continuous Improvement	Yes	1/6
	Emerson	217	38	89.86%	88.7	Continuous Improvement	Yes	2/6
	Franklin	398	39	77.63%	None on Report Card	Continuous Improvement	No*	1/6
	Gorrell	391	53	45.90%	88.2	Continuous Improvement	No**	3/6
	Smith	244	32	66.67%	99.9	Excellent	Yes	6/6
	Whittier	357	24	57.42%	96.4	Excellent	Yes	6/6
	Sub-Total	*1,780*	*221*					
Middle	Massillon	1,306	259	53.88%	86.1	Continuous Improvement	No***	2/9
High	Washington	1,364	299	48.71%	91.6	Continuous Improvement	No****	7/12
	Total	*4,450*	*779*					
	District	*4,550*	*930*	*54.27%*	*88.9*	*Continuous Improvement*	*No*******	*10/25*

*Year 6 Improvement **At Risk
**Year 1 Improvement ****Improvement Year 3 *****Improvement Year 3

Chart 6-1: Performance Index Four Year Trend



	District	Bowers	Emerson	Franklin	Gorrell	Smith	Whittier	MMS	WHS
Top Score	120	120	120	120	120	120	120	120	120
2002-2003	75.3	84.9	70.6	62.8	80.8	79.9	92.6	72.2	0
2003-2004	79.6	82.3	74.3	72	95	91.5	88.6	76.3	0
2004-2005	83.7	90.5	78	76.9	90.6	90.8	89.4	79.6	89.1
2005-2006	88.9	88.9	88.7		88.2	99.9	96.4	86.1	91.6

Summary of Findings

1. ***Data Dashboards:*** The district and the schools need to create data dashboards that, at a glance, show how the district and the school are doing against targeted goals.
2. ***Data Management:*** Data management needs to be improved. A revised data management book (please see Data Book Outline in Appendix IV) needs to be created that is solely purposed to provide data to allow the principals and their staffs to drive toward continuous improvement. One major change would be to track student performance from one grade level to the next and allocate resources based upon student need. At the elementary school level, special education and gifted students should be assigned back to the school of origin for the purposes of determining overall school scores. The IRN numbers for Franklin and the Middle School should be changed to reflect that these schools were both reconstituted.
3. ***Continuous Improvement:*** Two of the elementary schools, Smith and Whittier invented a process for continuous improvement planning that is participatory and at the same time accounts for finding and providing supports for raising the achievement of all students. This process, under the direction of the curriculum director, was shared in January and will be replicated in all of the buildings.
4. ***Special Education:*** The special education placement rates should be reduced to an overall rate of 16%, the national urban special education placement rate.

Figure 6-3: Stark County Theory of Coherence

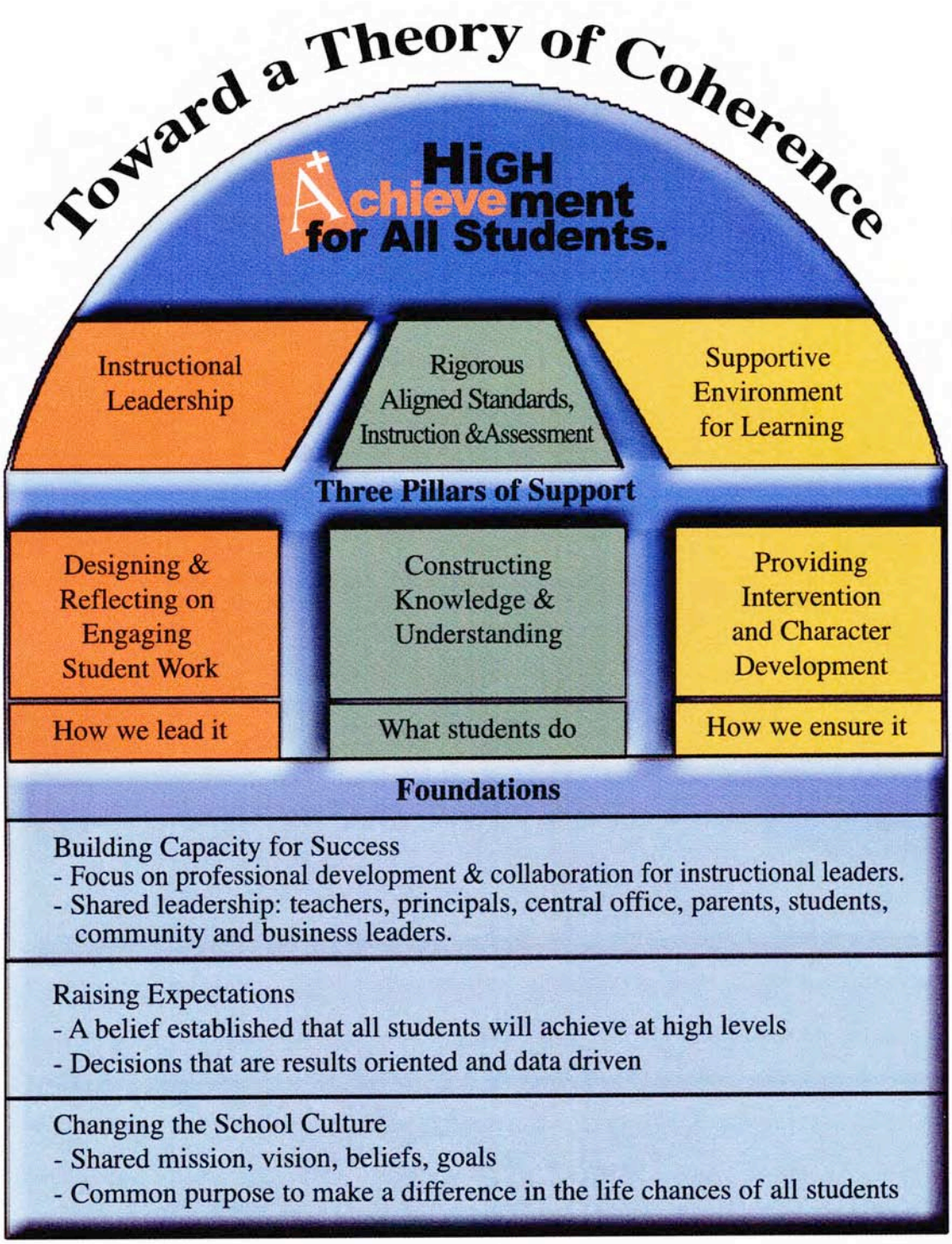


Figure 6-4: Theory of Action for District Reform

To ensure high levels of achievement and powerful life options for each and every student, a school district must have certain attributes that are tightly aligned: a clear instructional focus, leadership for success and accountability for results. Permeating these attributes must be a values-driven culture encompassing a relentless commitment to equity and continuous improvement.

Even with these attributes and culture, success depends on having organizational capacity to allow the district to sustain a focus on teaching and learning and thereby achieve its mission.

These essential attributes, cultural dimensions, and internal and external capacities are necessary to build a high-performing, equity-based school district. A district must concurrently address the three central attributes as well as critical weaknesses in capacity, using this as an opportunity to intentionally build a sustaining culture. However, the sequence and tactics for work within each area are based on strategic decisions related to the context and capacity of the district.

Theory of Action for District Reform

Essential Attributes, Culture and Capacities to Build a High-Performing, Equity-Based School District

Values-Driven Culture

A culture with a relentless commitment to equity, results, ownership and continuous learning that ensures personal and academic success for **each** and **every** student:

- A belief that all students can meet rigorous standards if they are provided high-level teaching and supported to achieve high-level learning
- A climate of respect and inclusion for students, parents, staff and community members
- The elimination of barriers that limit access to rigorous learning
- Courageous analysis and problem solving to address difficult issues
- Shared learning and collaboration
- Personal responsibility and internal motivation
- A belief in powerfully executing best practices *and* innovating to achieve powerful results

Clear Instructional Focus

Sustained focus on the quality of teaching and learning and the climate in which learning takes place. Accomplished through *district-level systems* that provide the resources for powerful instruction and *site-level systems* to support a high level of professional practice:

- A common curriculum based on rigorous standards
- A continuum of differentiated, extended instructional time and support that provides access to high-level learning for all students regardless of skill, specifically addressing those needing special education services and academic language development
- A comprehensive professional development system that pervades the organization
- A system of ongoing assessments, data reporting and collaborative analysis linking data to instruction
- Aligned standards, curriculum, instruction, assessment and professional development
- An inclusive climate for learning that is responsive to all students

Leadership for Success

Strategies to build deep, sustained leadership capacity from the board to the classroom to execute the instructional focus, as seen in the ability to provide:

- A clear, positive direction for the district that is reflected throughout the system
- Accountability for people, programs, processes and financial and other resources
- Recruitment, selection, development and retention of personnel, including systems to attract and support future leaders
- The alignment of personnel, planning and resources that results in positive learning for all students with the strongest personnel and supports focused on the most challenged students and schools
- Positive relationships among students, parents, staff, the board, labor organizations and the community that create the climate and culture to sustain reform
- A proactive approach to change, strategically assessing and planning to move the district

Accountability for Results

Systems that enable a focus on results, powerful implementation and continuous improvement:

- A comprehensive, transparent accountability system with rigorous student achievement goals
- Systems to enable rapid application of data and feedback for instructional, performance management and accountability needs
- A continuous planning, evaluation and resource allocation / reallocation cycle
- The use of data to enable a focus on closing the achievement gap

Organizational and Environmental Capacity

Human, political and operational capacity to facilitate a continued focus on instruction:

- Highly qualified personnel in critical positions
- Efficient and effective operations and systems (finance, HR, facilities, IT, etc, including fiscal solvency and use of financial resources)
- Policies and practices that ensure a safe, supportive environment for learning at every school
- Proactive engagement of parents and other internal and external stakeholders, including state and local governmental agencies
- A political climate that enables the execution of fundamental reforms

Figure 6-5: A Comprehensive District Aligned Instructional System

This framework has been designed by the Stupski Foundation as a guide to the critical components of a Comprehensive Aligned Instructional System.

Illinois School District U-46

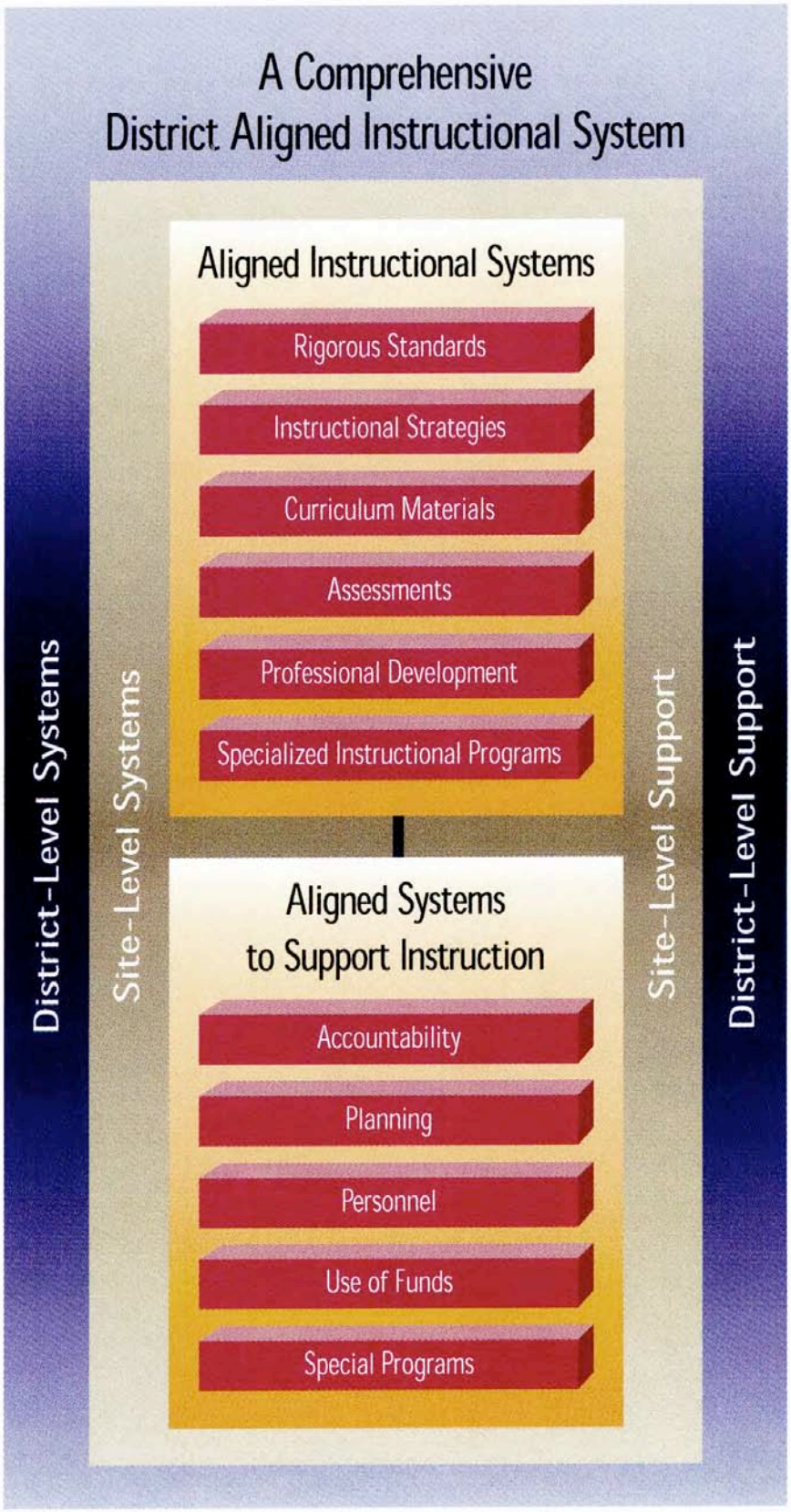
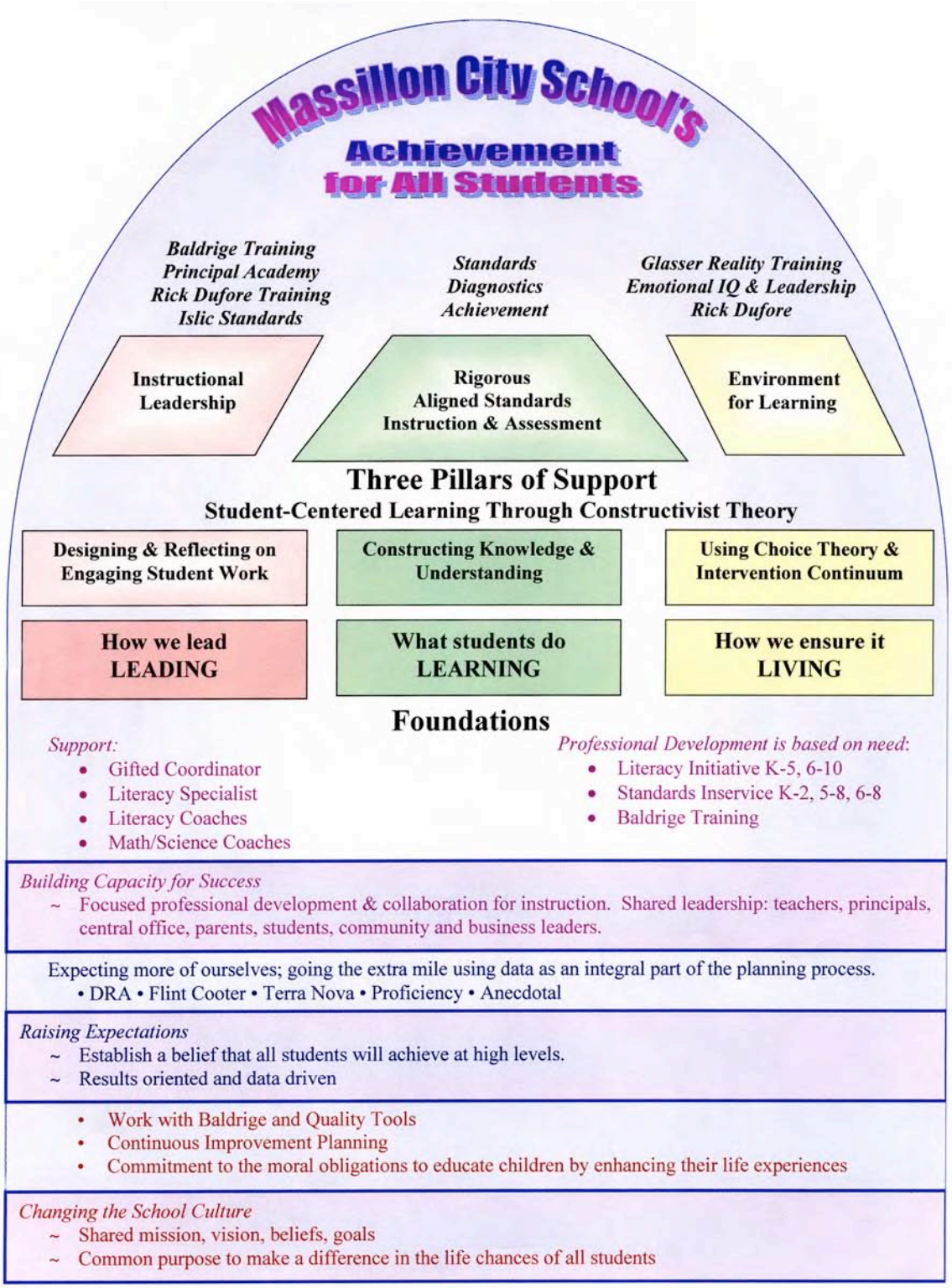


Figure 6-6: Massillon City School Theory of Action



ELEMENTARY SCHOOLS

These schools provide compelling evidence, once again, that when we teach students to high levels and focus on closing achievement gaps, students succeed… These schools are a testament to the power of committed educators to transform the lives of children…. – Kati Haycock, Director, Education Trust in a press release about five elementary schools honored as "Dispelling the Myth" schools. October 30, 2006[1]

Introduction

The observer reviewed the data presented by Kathy Nolan, Curriculum Director, on December 14, 2006 and then made visits to each school.

Kathy Nolan provided the following:

- School Test Results
  - Passage Rates—Grade 2 Terra Nova Math, 5 years
  - Passage Rates—Grade 3 OAT Math, 2 years
  - Passage Rates—Grade 4 Proficiency/OAT Math, 5 years
  - Passage Rates—Grade 2 Terra Nova Reading, 5 years
  - Passage Rates—Grade 3 OAT Reading, 3 years
  - Passage Rates—Grade 2 Terra Nova Writing, 5 years
  - Passage Rates—Grade 4 Proficiency/OAT Writing, 5 years
  - Value Added Data—because of the inclusion of student names, this data has not been reproduced in this report.
- Elementary School Report Cards 2005-2006
- Item Analyses for Test Data
- School Improvement Plans
- Chart of Performance Index Four Year Trend

Details of the following programs were also shared:

- District-Wide Literacy Initiative Materials
  - Beliefs, Vision, Mission
  - Information from the Ohio Department of Education Literacy Initiative Conceptual Framework
  - Massillon City Schools Framework for Planning and Implementation: Ohio Literacy Initiative—Resources, Planning for Coherence, Effective Core Program, On-going Assessment and Accountability, Safety Nets, Ongoing Professional Development, Home School Partnerships, and Community Support.

[1] Available: http://www2.edtrust.org/EdTrust/Press+Room/DTM+Winners+2006.htm

- Marcia Freeman's K-5 School-Wide Writing Program
- Science Curriculum K-4
- Listing of Mathematics Curriculum Units K-5 created under the Crossroads Project
- Everyday Mathematics 2002 & 2004 Ohio Curriculum Map created by Heather Lash, Everyday Math Consultant
- Pacing document example for Math K-5, created by Kathy Nolan, Curriculum Director,

The author's schedule of school visitations follows:

• L.J. Smith Elementary	January 9, 2007
• Gorrell Elementary	January 11, 2007
• Bowers and Whittier Elementary	January 12, 2007
• Emerson and Franklin Elementary	January 17, 2007

This chapter includes the following sections: Review of the Literature: Elementary School; Observations and Recommendations; and Summary of Findings.

Review of the Literature: Elementary School

Scientifically Based Programs: In the years since the advent of NCLB, a new notion of using programs with a research base that is scientifically supported and thus likely, if used properly, to show gains in student achievement. The first set of programs to undergo federal scrutiny and evaluation were the reading programs.

In essence, the debate was ended about whether or not the "whole language" or the phonetics approach was most appropriate to teach reading. The findings were what many practitioners were already doing: using both approaches. However, the new implementation finding was that the quarterly use of common assessments improved student achievement exponentially. Usually these assessments are created by the teachers in school districts and implemented on a schedule set up prior to the school year.

Simultaneously with the federal research in reading, the Ohio State Department of Education mounted an extensive program of teacher professional development to support the state recommended scientifically based reading program. Teachers in school districts all over the state participated in these professional development programs and implemented what they had learned.

Elementary mathematics was the next subject to be looked at by the federal researchers. On January 24, 2007, Debra Viadero reported on the findings regarding elementary mathematics programs in *Education Week*:

> The What Works site says a handful of rigorously conducted experiments show that *Everyday Mathematics*, published by Wright Group/McGraw-Hill of DeSoto, Texas, has "potentially positive effects" on achievement compared with more traditional math programs.[2]

The mathematics findings do not surprise this author because the efficacy of Everyday Mathematics has been demonstrated over and over even when the program was first piloted as "Chicago Math." The program was developed at the University of Chicago and makes use of a highly effective method of instruction, i.e. patterning.

Reuven Feuerstein tested and documented the effectiveness of patterning in his system of Instrumental Enrichment:

> Feuerstein's Instrumental Enrichment (FIE) is a classroom curriculum designed to enhance the cognitive functions necessary for academic learning and achievement. The fundamental assumption of the program, based on the theory and research pioneered by Professor Reuven Feuerstein (since the 1950s), is that intelligence is dynamic and modifiable, not static or fixed. Thus, the program seeks to correct deficiencies in fundamental thinking skills, provide students with the concepts, skills, strategies, operations, and techniques necessary to function as independent learners, to diagnose and, and to help students learn how to learn.[3]

Elementary science will be examined next and scientifically based research recommendations will be made by the United States Department of Education.

Previous chapters have included literature reviews on curriculum, instruction, professional development and continuous improvement.

Observations and Recommendations

During Convocation 2006, Superintendent Fred Blosser asked each elementary school staff and principal to discuss the strategies used by Smith and Whittier Schools to get to excellent. Further, he challenged all of the elementary schools to follow the lead set by Smith and Whittier and to also attain the status of excellent. While this is a tall order, the author has looked at the data and the continuous improvement planning process actually in use and believes that the challenge is attainable.

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[2] Viadero, D. (2007). Leading Math Texts in *Education Week*. Available: http://www.edweek.org/ew/articles/2007/01/24/20texts.h26.html#top

[3] Ben-Hur, M. (2000). *Feuerstein's Instrumental Enrichment: Better learning for better students.* Available: http://www.newhorizons.org/strategies/ie/hur.htm

In order to look at the data for the elementary schools, the author created the following chart entitled: Statistics at a Glance. For this section, the chart was shortened to show only the statistics for the elementary schools.

Table 7-1: Statistics at a Glance--Elementary

	Name of School	06-07 Nov Enrollment	Special Education Enrollment	% Free & Reduced Lunch Oct 06	05-06 Performance Index Score	05-06 Rating	05-06 Met AYP	05-06 # of Indicators Met
Elementary	Bowers	173	35	53.71%	88.9	Continuous Improvement	Yes	1/6
	Emerson	217	38	89.86%	88.7	Continuous Improvement	Yes	2/6
	Franklin	398	39	77.63%	None on Report Card	Continuous Improvement	No*	1/6
	Gorrell	391	53	45.90%	88.2	Continuous Improvement	No**	3/6
	Smith	244	32	66.67%	99.9	Excellent	Yes	6/6
	Whittier	357	24	57.42%	96.4	Excellent	Yes	6/6
	Sub-Total	*1,780*	*221*					

*Year 6 Improvement
**At Risk

The author looked at the student test data that follows:

Chart 7-1: Passage Rates–Grade 2 Terra Nova, Math

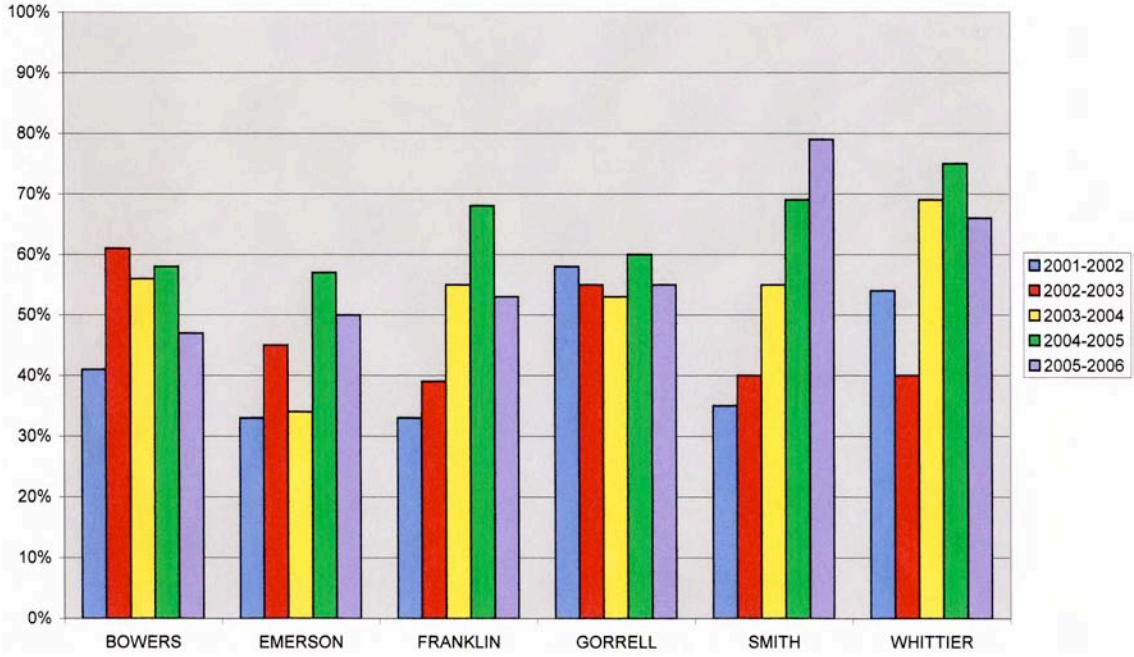


Chart 7-2: Passage Rates–Grade 2 Terra Nova, Reading

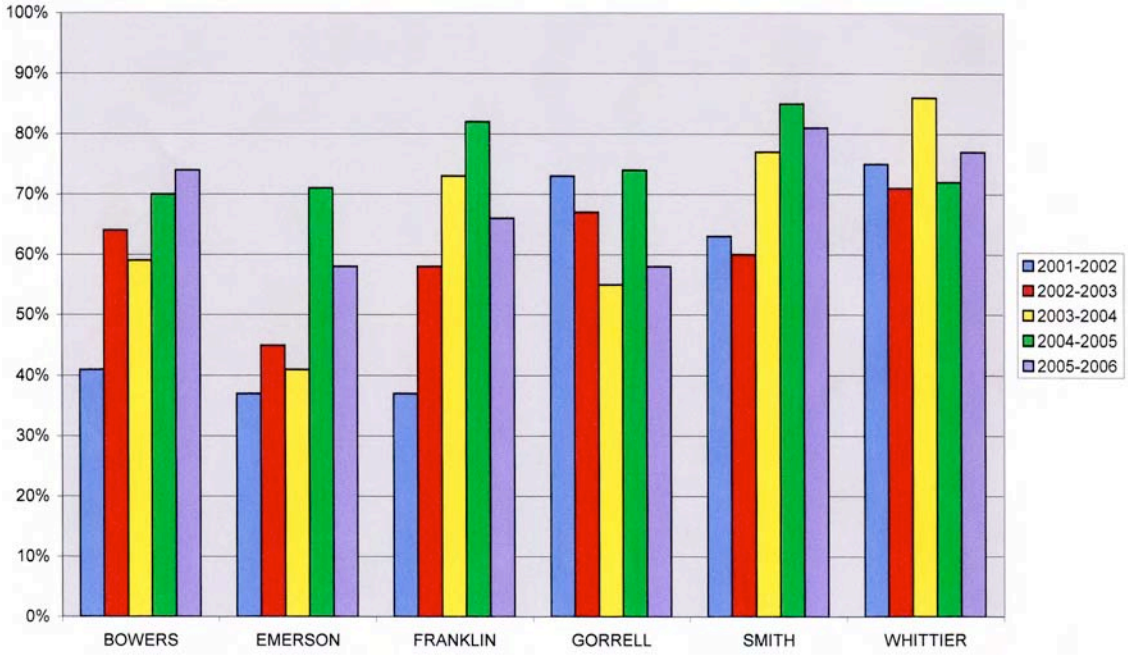


Chart 7-3: Passage Rates–Grade 2 Terra Nova, Writing

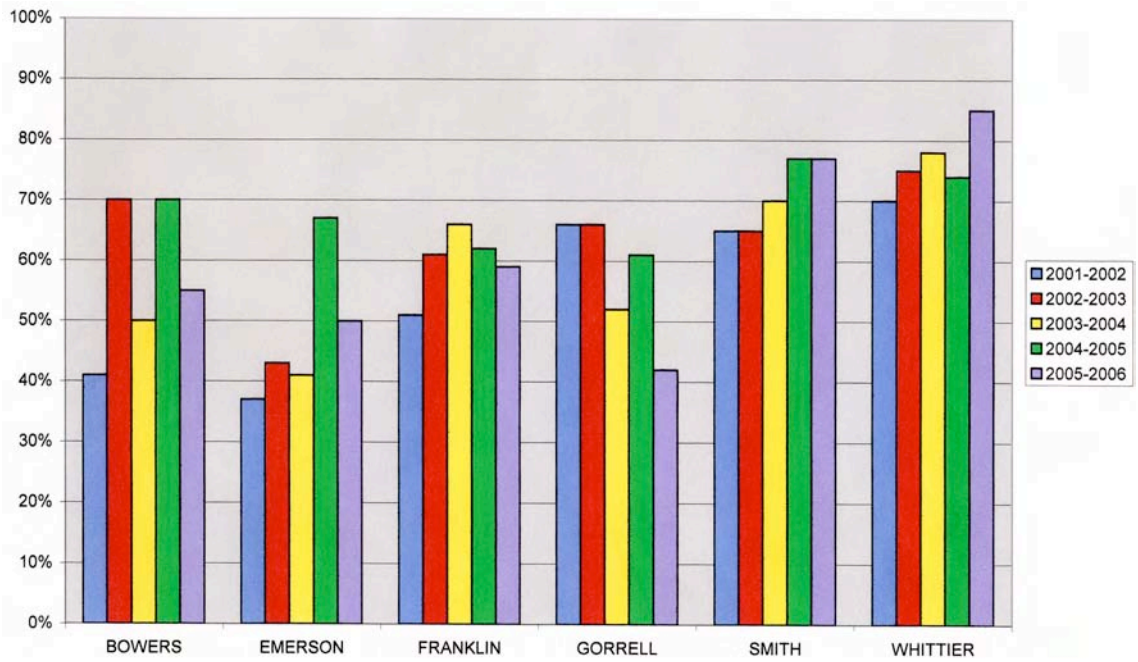


Chart 7-4: Passage Rates–Grade 3 OAT, Math

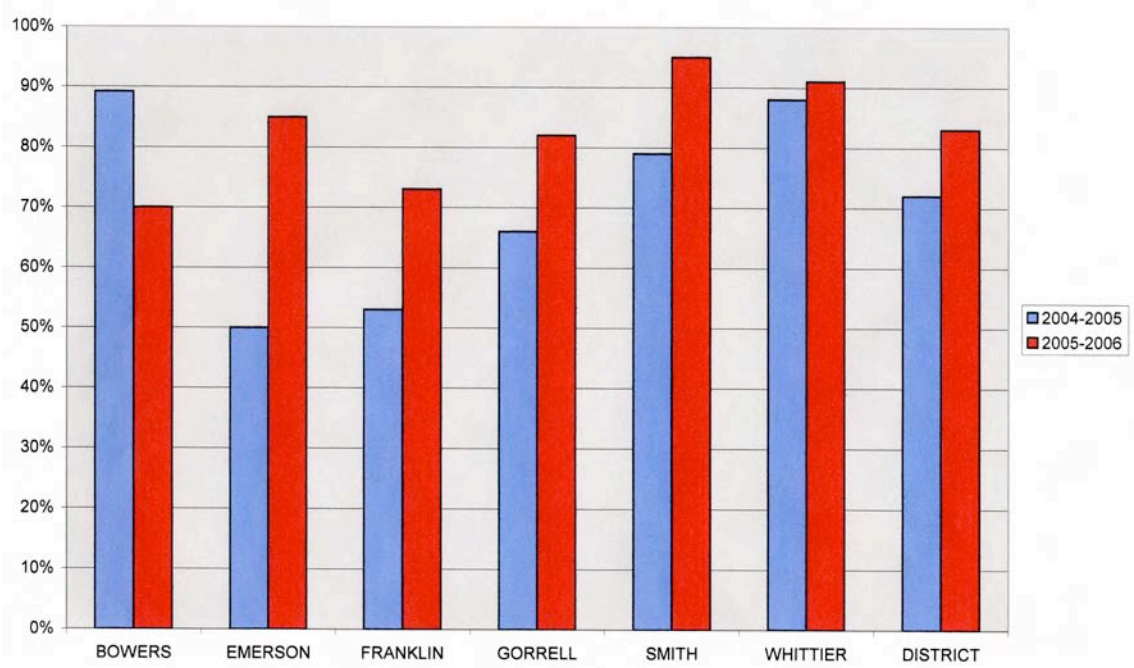


Chart 7-5: Passage Rates–Grade 3 OAT, Reading

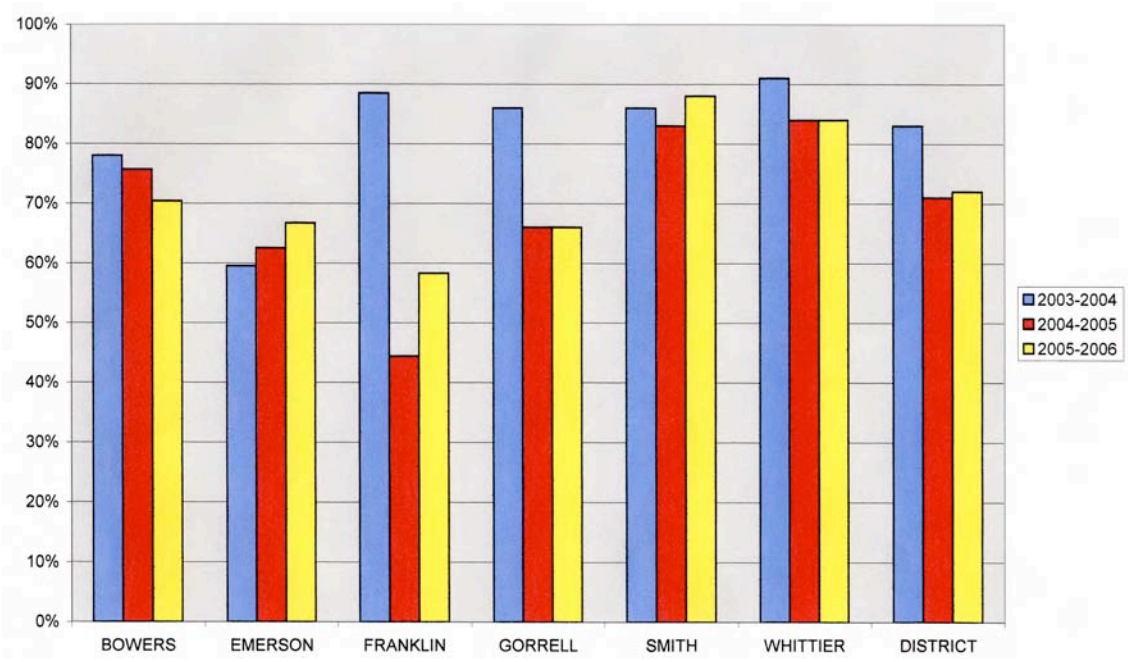


Chart 7-6: Passage Rates–Grade 4 Proficiency/OAT, Math

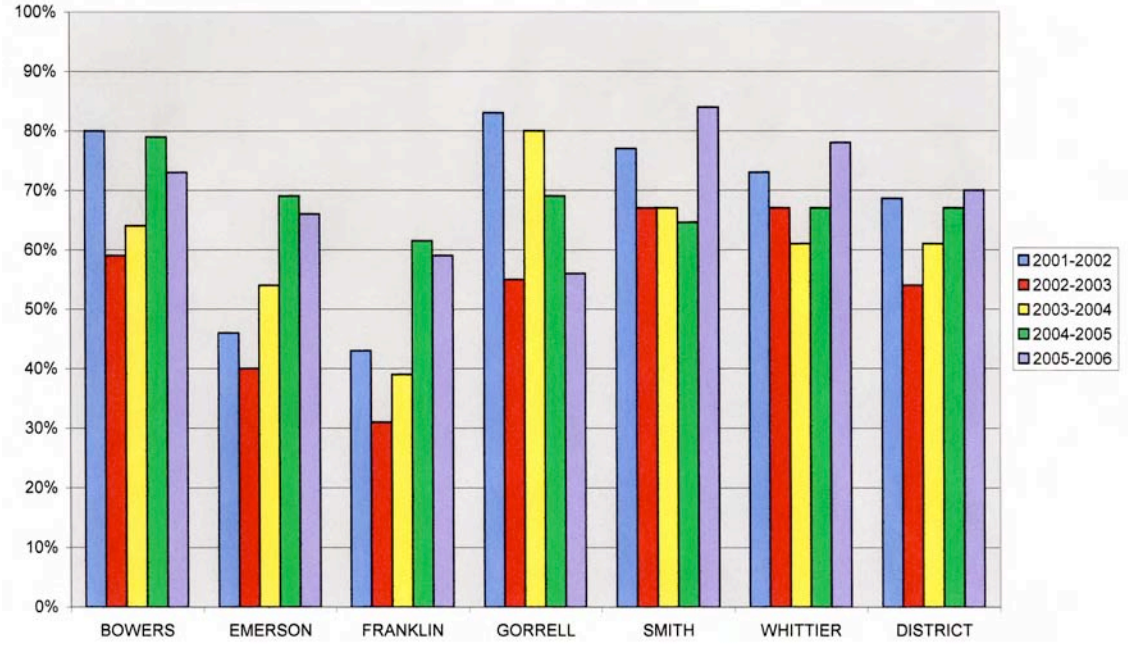


Chart 7-7: Passage Rates–Grade 4 Proficiency/OAT, Reading

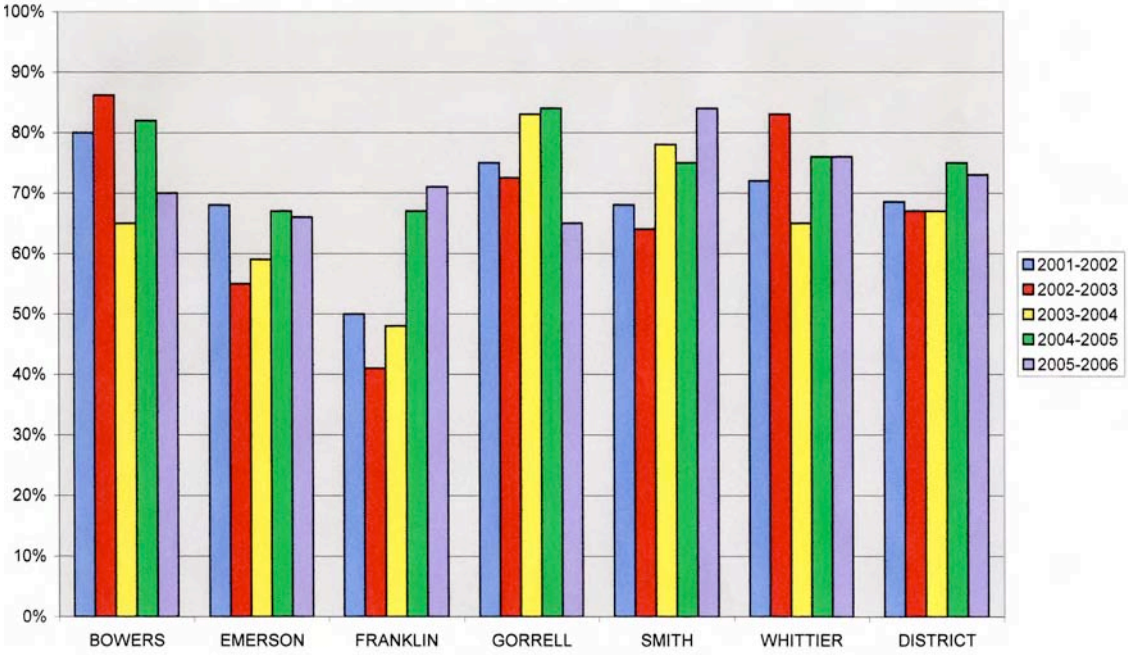
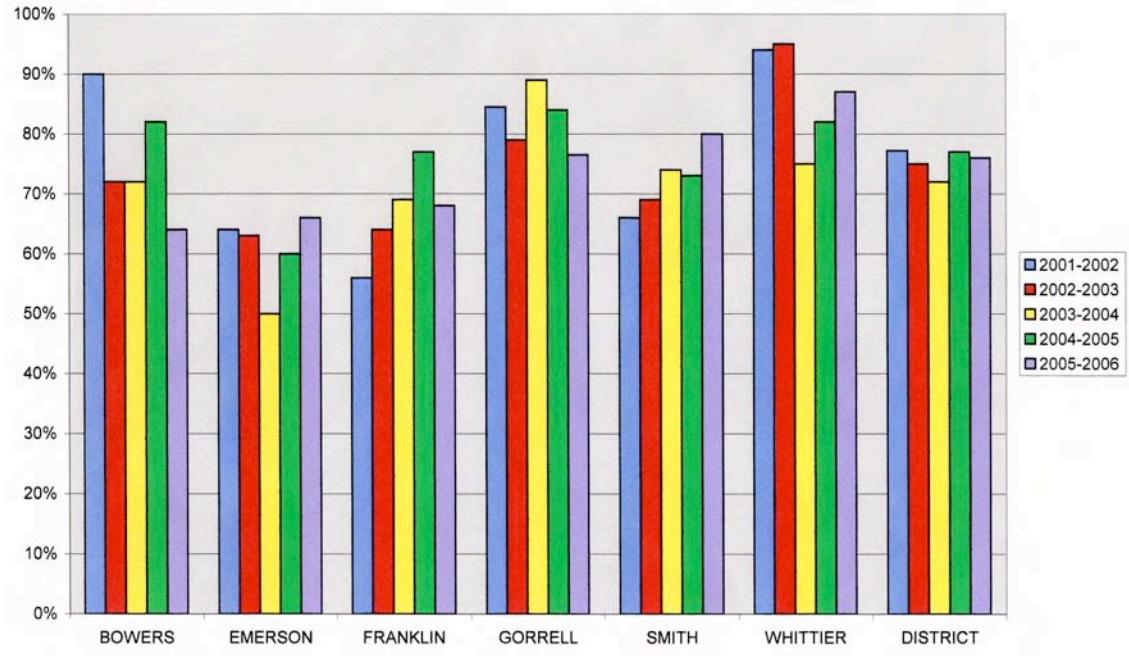


Chart 7-8: Passage Rates–Grade 4 Proficiency/OAT, Writing



Most of the teachers and principals describe the data in the following way: "We cannot explain the ups and downs of the scores." The author thinks that there are two explanations.

1. The testing data needs to be looked at vertically by grade level. In other words, what is the trend from Grade 2 to Grade 3 to Grade 4 etc. While the tests are different, the students remain the same. Grade 2 testing is a baseline test and the first exposure of the students to a standardized test. The results will bounce with the difference in the students at each grade level. What is important here is what the teachers do with the scores. If the Grade 2 teachers look at the previous year's scores as an indicator of where they need to strengthen or tighten the curricula or change the instructional strategies, and if the Grade 3 teachers look at the performance of each student entering the grade and address the student's strengths and weaknesses then the testing exercise is of real use. In other words, looking at the scores by grade over the years gives rise to different conclusions. Value added will partially do this as student performance is analyzed by yearly growth.

   Let's look at one example—Smith Reading Scores. Please note that I have selected Smith because their performance index was highest among the six Massillon City Elementary Schools.

Table 7-2: Smith Vertical Reading Scores Same Group of Students, Grades 2, 3 and 4

Grade Level	Year	Test	% of Students Passing*
Grade 2	2003-2004	Terra Nova	78%
Grade 3	2004-2005	Grade 3 OAT	82%
Grade 4	2005-2006	Grade 4 OAT	84%

* The data points are not labeled on the district charts, so the scores shown are estimates.

   If we knew exactly what was done with this group of students to obtain this rate of growth, we could then estimate what it would take to increase the rate of growth and apply what we knew to the next group of students entering the 2nd grade. From this data in all six schools, we can make predictions about what the % of students passing the Grade 5 OAT should be in 2006-2007.

2. The State Department of Education sets the cutoff scores yearly based upon the performance of all students in Ohio. It is usually the case that from year to year the cutoff scores are higher and looking at a yearly comparison by school masks that fact.

Recommendations:

1. The Terra Nova chart needs district data added because eventually these students merge into the 5th grade.
2. In addition to creating the school test charts shown above, the district needs to create charts that show the vertical progress by grade level. While the tests are different and the cutoffs are changing, the trend lines are important. Further, the district does do item analyses in the summer of each year, and the overall findings and changes arising from those findings ought to be tracked.
3. Resource allocations should be based on the vertical progress charts. Let's look at another example to demonstrate this recommendation.

Table 7–3: Smith Vertical Reading Scores Same Group of Students Grade 2, 3 and 4 with Grade 5 District Scores Considered

Grade Level	Year	Test	% of Students Passing*
Grade 2	2002-2003	Terra Nova	60%
Grade 3	2003-2004	Grade 3 OAT	84%
Grade 4	2004-2005	Grade 4 OAT	76%
Grade 5**	2005-2006	Grade 5 OAT	71%

* The data points are not labeled on the district charts, so the scores shown are estimates.
** Grade 5 in 2005-2006 had students from all of the elementary schools, not just Smith.

Looking across all of the schools, 2002-2003 was one of the lowest score years for Terra Nova Reading Scores. While this group of students was in grade 3, many, but not all of the schools showed large gains with these students, and district-wide, the reading scores were at 82% passage. By Grade 4, the gains were not sustained and the district was at 75% and then in Grade 5, the reading scores for the district were at 71%. It should be noted that when these students were in grade 3, this was the first year of the Reading OAT and the cutoff scores were lower thus creating the false impression that the 82% passage rate constituted the beginning of a trend. In 2005-2006, the middle school and in particular, the 5th grade teachers needed to know the history of these students and additional resources needed to be applied to assure their success.

As the years go on and more elementary schools become excellent, this kind of data analysis will be very important to the district for resource allocation. School improvement dollars were used by the now excellent schools to get to excellent and those dollars should disappear when the school becomes excellent. Thus, the district needs to decide how to fund Success Academies without school improvement dollars. Or, if the 2nd grade scores are high enough and the 3rd grade scores follow the trend, maybe particular schools will not need this strategy.

Superlative would be a good word to describe the overall findings regarding the Massillon City Elementary Schools. The author chose the quote by Kati Haycock to begin this chapter because it could have said about the elementary schools in the Massillon City Schools.

The continuous improvement planning process actually in place; the curricula, instruction and professional development are all excellent and carefully linked together. An impressive quarterly assessment and review system guarantees that student progress is made. The student work that is displayed is evidence that the curricula are being implemented. The student enthusiasm for learning is evidence that each student feels a sense of belonging and pride in the progress that is being made.

The most outstanding observation that could be made about these elementary schools is that there is a spirit of team effort focused carefully on increasing student achievement.

Continuous Improvement Plans: The continuous improvement process that was used during the 2005-2006 school year at both Smith and Whittier is noteworthy. Both schools set performance indicator targets—a team effort of teachers and the principal. Both schools exceeded the targets by working as a team to raise the achievement of all students.

As the author met with the Smith and Whittier principals it became obvious that they are using the same process again this year and had discussed aspects of the process with the rest of the elementary school principals. In point of fact, the continuous improvement process underway very much resembles the Six Sigma DMAIC[4]

None of what was being done by the schools was reflected in the Continuous Improvement Plans that had been submitted to the central office, proof of the Reeve's notion that excellent schools achieve "great success through a common set of professional and leadership practices, but low scores on conforming with planning format requirements."[5]

Many teachers talked with the author about their quarterly assessment procedures and in some cases showed the data collected. Clearly the teachers are using this data and find the process to be useful.

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[4] Six Sigma - What is Six Sigma? Available: http://www.isixsigma.com/library/content/ six_sigma_ dmaic_quickref_define.asp#deliverables

[5] Reeves, D.R. (2006). *The learning leader: How to focus school improvement for results*. Alexandria, VA: Association for Supervision and Curriculum Development. p. 61, p. 62, 64

In discussions with the curriculum director and the Franklin school principal, the author learned that York School had been closed and the grades from York were combined with the Franklin School. Franklin School had inherited the school improvement status of the York School.

Recommendations:

1. Continue the process for continuous improvement invented at Smith and Whittier in all schools by setting targets for continuous improvement with teacher participation at all schools with graphic of district elementary curricula. As the quarterly assessment system becomes a more established practice, create Excel spreadsheets that can be used as a tool for recording student progress. Passing the student information on to the next grade level would be possible as the technology becomes more available.

2. Correct improvement status for Franklin with use of new IRN number etc. The Stark Educational Service Center stands ready to help here.

3. Find ways to incorporate the Smith and Whittier continuous improvement planning processes into the district planning document.

Leadership and "Star Teachers" Working Together as Teams for Student Success: As the author toured the elementary schools and the elementary classrooms it was very apparent that those schools are fortunate to have many excellent leaders and many "star teachers" with high expectations focused on making significant individual gains for all students. Worthy of particular note:

- Support for Students: Use of Success Academies for students needing extra help or attention to master skills and opportunities for "Ruby Payne" students to do homework.
- Students are held to high expectations regardless of background of poverty.
- Multiple locations for gifted and special education programs.

Teachers and principals are working together to provide the very best for every student. Worthy of particular note:

- Each of the schools has a system for grade level meetings that focus on individual student growth and the improvement of instruction.
- The music and art teachers are frequently providing instruction that supports the academic curriculum.

There is a very well integrated system of curriculum, instruction, and on-site professional development. Worthy of particular note:

- Technology integrated into the curriculum through a program called "Break Through for Literacy."
- Excellent Learning Center program.
- Books as a format for writing and integrating science and social studies.
- Posted examples of original student writing in draft form.
- Integrated research projects at the 3rd and 4th grade.
- Frequent use of patterning in the math curricula.
- Excellent interim assessment system.

Student enthusiasm for learning is evident everywhere!

Recommendations:

1. All schools should continue to or begin to implement the district system for curricula, instruction and professional development. Specific strategies that may be considered to enhance the system follow:

    a. As the computers are upgraded, expand the use of technology to allow students to create "production" writing work. This practice was only seen in a few cases and ought to become the district standard. In the meantime, make signs that explain that many of the pieces of student work posted are "rough drafts" not "production" work.
    b. Create a short description of the district program for use with teachers new to the district.
    c. Laminate more materials for learning centers so that the use of paper is decreased.
    d. Share pictures of student work on web-site—give each principal a digital camera to accomplish this. Eventually use video with student explanations.
    e. Create district-wide "problem of the week" contests in math and science by grade level.
    f. Add some "may do" weekly options for each grade level that are planned with teachers of gifted and classroom teachers.
    g. Create additional opportunities for sharing across the 6 elementary schools by grade level.
    h. Create opportunities for students to generate activities and/or questions within activities.
    i. Explicitly apply patterning now used in math to reading and writing.

2. Expand opportunities for parent participation combined with drop off and pick ups.

Summary of Findings

The elementary program is superb with students excited about learning and leaders and teachers who are making sure that every child exceeds the achievement level that might be expected given the poverty levels at the schools. These schools are on track for success and, best of all, an ever increasing number of students are reading with fluency and are proficient with numeracy skills.

MASSILLON MIDDLE SCHOOL

Here is the wonderfully complex early adolescent. Fiercely independent, yet yearning for meaningful relationships with adults; revealing emotional vulnerability, yet deeply self-protective; capable of complex analytic thinking, yet disorganized to the point of chronic forgetfulness; compassionate and altruistic in the desire to make the world a better place, yet capable of striking out cruelly at an unpopular classmate; able to understand and accommodate the needs of others, yet displaying a self-centeredness that seems regressive compared with the kindhearted 8-year-old we knew a few years ago. The early adolescent worries us and astonishes us at the same time. (p. 8-9). – Donna Marie San Antonio[1]

Introduction

The author visited the Massillon Middle School on February 7, 2007 and met with Gary McPherson, Principal. Prior to the visit, Kathy Nolan, Curriculum Director, provided the following data.

- Passage Rates — Grade 5 OAT, 2 years
- Passage Rates — Grade 6 Proficiency/OAT, 5 years
- Passage Rates — Grade 7, OAT, 2 years
- Passage Rates — Grade 8, OAT, 2 years

This report includes the following sections: Review of the Literature: Middle School; Observations and Recommendations; and Summary of Findings.

Review of the Literature: Middle School

Organizing as a Middle School

Beginning in the 1970's and 1980's middle schools were established "as a nurturing bridge from early elementary grades to high school, but critics say they now more often resemble a swamp, where urban youth sink into education failure." [2] The National Center for Education Statistics (2000) finds that high school failure is rooted in grades 5-8.[3]

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[1] San Antonio, D.M. (April 2006). Broadening the world of early adolescents. In *Educational Leadership*. Alexandria, VA: Association for Supervision and Curriculum Development. pp. 8-13.

[2] Jonas, M. (January 28, 2007). Junior high. *The Boston Globe*. Available: http://www.boston.com/news/education/k_12/mcas/articles/2007/01/28/junior_high?mode=PF

[3] National Center for Education Statistics (2000). *Mathematics and science education in the eighth grade: Findings from the Third International Mathematics and Science Study*. Washington, DC: Author.

Two schools of new thought are beginning to emerge: reorganize the middle school grades into grades K-8 or grades 7-12.

Some school districts have found success in K-8 arrangements. For example:

> In Philadelphia's newer K-8s, which are more similar demographically to the city's middle schools, students performed slightly better than at middle schools, but those advantages were not always statistically significant.[4]

A study of 45,000 North Carolina sixth graders in 243 schools in 99 districts. North Carolina middle schools released on February by researchers at Duke University and the University of California at Berkeley found that:

> Sixth graders do better in elementary school than middle school…
>
> The researchers found that sixth graders in middle school had more discipline problems and lower test scores than their sixth-grade peers in elementary schools. "These findings cast serious doubt on the wisdom of the historic nationwide shift to the grades 6-8 middle school," said Philip Cook, Duke professor of public policy and economics and an author of the study.
>
> Nationwide, 75 percent of sixth graders attend middle school. In North Carolina, 90 percent are in middle schools. That's in contrast to the 1970s, when the reverse was true: about 75 percent of sixth graders nationally attended elementary school. Growth pressures were a factor in the shift, but educators also argued that the practice was developmentally appropriate.
>
> "As it turns out," Cook said, "moving sixth grade out of elementary school appears to have had substantial costs." For the full report, go to http://www.pubpol.duke.edu/news/ news.php#sixth_grade[5]

Studies in Milwaukee and Baltimore demonstrated stronger achievement if the grades were arranged K-8 than if they were arranged K-5 and 7-8.[6]

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[4] Gootman, E. (January 22, 2007). Taking Middle Schoolers Out of the Middle. New York Times. Available: http://www.nytimes.com/2007/01/22/education/22middle.html?_r=1&pagewanted=print

[5] News Observer. Feb 27, 2007. Triangle Briefs: Study questions shift of 6th graders. *News Observer*. Available: http://www.newsobserver.com/146/v-print/story/547649.html

[6] Yecke, C. P. (April 2006). Mayhem in the Middle: Why we should shift to K-8. *Educational Leadership*. Alexandria, VA: Association for Supervision and Curriculum Development. pp. 20-25.

Leaders in Massachusetts are beginning to establish schools that span grades 7-12,

> ….in a way that emulates some elite private and public schools.
>
> These educators are convinced that a rigorous six- or seven-year curriculum, within a single school extending through 12th grade, offers the best hope for student success in K-12 education, and beyond, especially among students from lower-income families, where a college future is not nearly the presumed path that it is in middle-class homes.[7]

However, Beane and Lipka (2006) make a very strong case that the problem with middle schools is not the grade level configuration, but the frequent lack of a curriculum that is "….intellectually stimulating and inspires young adolescents."[8]

Cheri Pierson Yecke, now the Chancellor of K-12 Public Schools for the Florida Department of education has written two studies[9] and an article in *Educational Leadership* (p. 25) essentially making the point that "A truly compassionate education cannot allow the desire for a nurturing environment to trump access to a rigorous, well-taught curriculum."[10]

Some suggest that it is necessary to differentiate the curriculum in middle school as it is often done in elementary schools to ensure the success of all students.[11] Others suggest that as the curriculum is differentiated, high expectations need to be set for all students and from these high expectations it is likely the result will be the same as what was seen at Bendle Middle School in Michigan: "Students expectations for what they can accomplish have increased dramatically." (p. 35)[12] The strategies used at Bendle included a grading system of ABCI, meaning that incomplete, unfinished or failing work was redone by the students.

Other suggest that differentiating the instruction through the use of technology will engage adolescent learners often called "Digital Immediate Gratification generation" or DIG.[13]

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[7] Jonas, M. (January 28, 2007). Junior high**.** *The Boston Globe*. Available: http://www.boston.com/news/education/k_12/mcas/articles/2007/01/28/junior_high?mode=PF

[8] Beane, J & Lipka, R. (April 2006). Guess again: Will changing the grades save middle –level education? *Educational Leadership*. Alexandria, VA: Association for Supervision and Curriculum Development. pp. 26-30.

[9] Yecke, C. P. (2003). *The war against excellence: the rising tide of mediocrity in America's middle schools.* Praeger. Yecke, C. P. (2005). *Mayhem in the middle: How middle schools have failed America—and how to make them work.* Thomas B. Fordham Institute.

[10] Yecke, C. P. (April 2006). Mayhem in the middle: Why we should shift to K-8. *Educational Leadership, 63* (7). 21-25.

[11] Wormeli, R. (April 2006). Differentiating for tweens. *Educational Leadership, 63* (7). 14-17.

[12] Kenkel, S., Hoelescher, S., & West, T. (April 2006). Leading adolescents to mastery: The ABCI approach leaves no assignment undone, no failure unchallenged, and no middle schooler unengaged. *Educational Leadership, 63* (7). 33-37.

[13] Renard, L. (April 2005) Teaching the DIG Generation. *Educational Leadership (62)* 7

Goals of Middle Schools

Regardless of the time frame or author, the number one goal for middle schools is always improving student achievement. This was the thrust of the reports by the Carnegie Council (1989),[14] National Middle School Association (2003)[15] and the National Principals Association (2006).[16] Implementing this goal is specifically described with various steps outlined by the National Principals Association:

- Do you use data regularly to assess the effectiveness of your teams in developing differentiated lessons that meet academically rigorous standards, are consistently challenging, and are developmentally appropriate for each student?
- Is each student achieving at a proficient or higher level of performance?
- Does each of your students say he or she feels connected to or well-known by at least one adult in your building—an adult who knows the aspirations, strengths, and weaknesses of the student and uses the information to help the student become successful and personally challenged in all classes and student activities?
- Is there adequate scheduled time each week for teachers to collaborate on planning instruction, reviewing student work, aligning instructional units with district and/or state standards, and encouraging interdisciplinary connections such as promoting literacy across the curriculum?
- Do administrators participate in team planning time and work sessions on a regular basis?
- Is each student regularly exposed to active inquiry and project-based instruction to ensure student engagement with essential knowledge, understanding, and skill?
- How many low-income and how many minority students are identified and served as gifted and talented in your school? Are all families encouraged to involve their children in challenging programs?
- Is each of your sixth or seventh grade students and families introduced to programs or services to support college awareness, aspirations, and planning?
- In addition to PTA and student council, how well does your school systematically extend opportunities to members of the community, especially the hard-to-reach parents, for input, feedback, and involvement in decision making regarding the academic, social, and co-curricular programs?

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[14] Carnegie Council on Adolescent Development. (1989). Turning points: Preparing American youth for the 21st century. New York: Author.

[15] National Middle School Association. (2003). *This we believe: Successful schools for young adolescents*. Westerville, OH: Author.

[16] National Principals Association. (2006). *Breaking ranks in the middle: Strategies for leading middle level reform*. Reston, VA: Author.

- How would your teachers respond if you were to ask them whether they have been provided with the professional development and the time to:
  - Collaboratively and regularly (at least monthly) examine student data and plan for improved student performance?
  - Collaboratively assess and plan for students' affective development?
  - Collaboratively plan for the integration of curriculum?
- Is each of your students involved in an ongoing effort (comprehensive multiyear program, class, advisory, etc.) that specifically promotes the development of the student's personal and social skills in the areas of effective communication, decision making, conflict resolution, self-awareness, personal safety, and stress management? Is each student assessed at different times on how effective these efforts have proven?
- Do you know what percentage of each classroom's student assessments is authentic (e.g., portfolio reviews, student-led conferences, and/or exhibitions) versus more traditional assessments (standardized tests)?
- Do you survey teachers as well as each student and family to discover whether the transition into and out of the middle level has been successful?
- How many of your "graduates" need remedial help in high school and how many drop out of school by the end of the ninth grade? Has your district ever systematically interviewed them to discover why?
- If you are a leader in a K–8, 6–12, or 7–12 school, are you satisfied with the |steps your school has taken to ensure alignment of the academic, developmental, and social programs among the grades in your school for students in the 10–14 age range?[17]

Challenge in the Middle School Curriculum

As standards are described in the curriculum section, it became clear that those standards are often a minimum and middle school students are being challenged to achieve more than is required by the state standards. Programs are organized differently.

Some programs accelerate the work required in high school and move it down to the middle school for one fourth of the student population. An example, at Central Middle School in Minnesota, is outlined below:

> Emily Christianson, an eighth-grade math teacher, said when students aren't challenged, they sometimes neglect their work or act out.
>
> About 25 percent of middle school students are participating, and they were admitted based on standardized test scores and teacher recommendations.

[17] National Principals Association. *How do I begin to break ranks?* Available: http://www.principals.org/s_nassp/sec.asp?CID=935&DID=53492

> Those students are enrolled in block classes where they move among accelerated science, social studies and language arts classes with the same set of students.
>
> Classes such as algebra, geometry and Earth science can be taken for high school credit. Spanish, which is not part of the pre-AP program, can also be taken for high school credit.
>
> The program has been implemented gradually over the past five years at the same time AP classes have been added to Columbia Heights High School. (There are now nine AP offerings at the high school). Beth Fawley, K-12 EXCEL coordinator for the district, said, "We're watching to make sure they're making growth from where they are instead of just looking at the MCAs and going, 'Oh good, they met their standard."
>
> Teachers and students say students are more excited about class. Students who participate in the pre-AP program are being challenged and prepared for high school AP classes. In high school they will have more room in their schedules to take AP classes -- through which they can earn college credit -- and electives they're interested in.[18]

Some school district are using college credit in 8th grade to challenge middle school students.

> Detroit Public Schools' middle school students will earn college credit this fall through a program to help decrease the number of dropouts and better prepare students for high school and postsecondary classes.
>
> The school district, which has struggled with low graduation rates, will require all 8,000 eighth-graders to take a college-level life skills class beginning next school year.
>
> Students who pass will receive one college credit through the free one-hour online course, being paid for in the first year through a pilot program at the Wayne County Community College District.
>
> "The idea is to get students thinking about college before they enter ninth grade," said district Superintendent William Coleman III.
>
> "We know we're losing students at the ninth grade," Coleman said. "We want them to come into high school excited about learning."

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[18] Moran, S. (February 06, 2007) Advanced middle-school students get a challenge. *Star Tribune*. Available at: http://www.startribune.com/142/story/982156.html

> Jan Ellis, state Department of Education spokeswoman, called the plan progressive. Ellis was not aware of any other programs where Michigan schools offer college-level courses to eighth-graders, but schools are not required to report that.[19]

Some school districts enroll all middle school students in challenging core subjects and provide support when a student encounters difficulties. Bellevue, Washington has such a program:

> …educators push middle school students to take a course load tough enough to prepare them for college-level work in high school.
>
> "Middle school students who struggle are sent to a supplementary support class," said Bellevue Superintendent Mike Riley. They go there temporarily during another period and remain in their regular classes, giving them two periods of the subject instead of one. "The support-class teacher maintains continuous contact with the regular teacher," Riley said. "When the regular teacher verifies a student is able to keep up without additional help, the student is exited from the support class and resumes the regular schedule."
>
> Riley added: "Oftentimes, the trick is not getting the kids into the support class, but how to get them to leave it."[20]

Sometimes young adolescents need help to see that hard work, not intelligence makes the difference in learning.[21] Very frequently, they decide that they can't learn something and breaking out of that cycle requires help from teachers or parents. Unfortunately, they will not often ask for that help. Sometimes connecting these students with challenging literature makes a difference as they read about how others have solved the same problem.[22]

Some school districts are using single sex classrooms to address the competition between the sexes. The studies about these schools are still in progress, thus the academic achievement effect is difficult to definitively determine at this time.[23]

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[19] Mrozowski, J. February 2, 2007. College classes in middle school? *The Detroit News*. Available: http://www.detnews.com/apps/pbcs.dll/article?AID=/20070202/SCHOOLS/702020377/1026&template=printart

[20] Mathews, J. November 28, 2006; A08. Escaping 'Average' Innovative Programs Make the Case That High-Level Classes Aren't Just for the Gifted. *Washington Post*.

[21] Apter, T. (April 2006). Resolving the confidence crisis. *Educational Leadership*. Alexandria, VA: Association for Supervision and Curriculum Development. pp. 42-46.

[22] Stallworth, B. J. (April 2006). The relevance of young adult literature. *Educational Leadership*. Alexandria, VA: Association for Supervision and Curriculum Development. pp. 59-63.

[23] Spielhagen, F. R. (April 2006). How Tweens View Single-Sex Classes. *Educational Leadership*. Alexandria, VA: Association for Supervision and Curriculum Development. pp. 68-72.

Observations and Recommendations

Observation: Massillon Middle School is in its second year of operation. It is a new, large school with four grades—5-8 and was created by combining two middle schools and drawing the 5th graders out of all elementary schools. The staff at the new middle school came from elementary schools, from the two middle schools and in some cases from the high school.

The number of administrators was reduced from 4 to 3 and a curriculum position was created.

As might be expected, the first year results were spotty. Only two standards were realized out of a possible 9 and discipline was a problem as mentioned at a Board of Education meeting in June 2006.

In November 2006, the principal and an assistant principal resigned at the middle school. Named as Head Principal, Gary McPherson, had served as the 5th and 6th grade coordinator. Joe Andaloro, former principal at Timken High School in Canton, was appointed to replace the former assistant principal on a temporary basis and Jeannine Warner, a retired assistant principal at Massillon's Washington High School, assumed McPherson's spot on a temporary basis.

Recommendation: The two new administrative hires for the middle school need to have elementary or middle school experience to complement the Principal's high school experience.

Eliminate the curriculum position. Add back the administrative position that was eliminated previously. Assign each principal a grade level to drive for instructional improvement in concert with the district curriculum person.

Observation: While a middle school concept has been created in the new middle school, little consideration has been given to the amount of instructional time devoted to the core subject areas. When you compute the amount of instructional time devoted to core subjects in the elementary school day you arrive at a figure of about 275 minutes daily. The middle school program has about 180 minutes devoted to the core on a daily basis. The rest of the instructional day is devoted to lunch and exploratory classes. Recess is also a part of the 5th grade day as well as something called "Prime Time."

Recommendation: Increase the core instructional time and decrease the time devoted to the exploratory classes.

Observation: Rigor is an issue in the middle school program. The most impressive observation about the elementary schools was that no matter what the background of the student, each was expected and helped to perform at optimum levels. At the middle school there is a different belief system. No longer is it the case that all students are performing well above what their backgrounds might indicate. This unfortunate conclusion is based upon the observations of the 7th and 8th grade core classes where with only one exception in science, students were not being encouraged to extend their reach academically. This conclusion is also verified in the school testing data.

Recommendation: The issue of rigor needs faculty discussion and the program needs to change. Rather than just one algebra class in the 7th grade concluding with geometry in the 8th grade, all students should be taking algebra in the 8th grade. Rather than assigning reading in the social studies chapter and then answering the questions in the textbook, teachers need to assign two and four point essays that will address the testing deficiency in that area.

Table 8-1: Statistics at a Glance: Middle School

Name of School	06-07 Nov Enrollment	Special Education Enrollment	% Free & Reduced Lunch Oct 06	05-06 Performance Index Score	05-06 Rating	05-06 Met AYP	05-06 # of Indicators Met
Massillon Middle School	1,306	259	53.88%	86.1	Continuous Improvement	No*	2/9

**Year 1 Improvement*

The author reviewed the following data:

Chart 8-1: Passage Rates–Grade 5 OAT, 2 Years

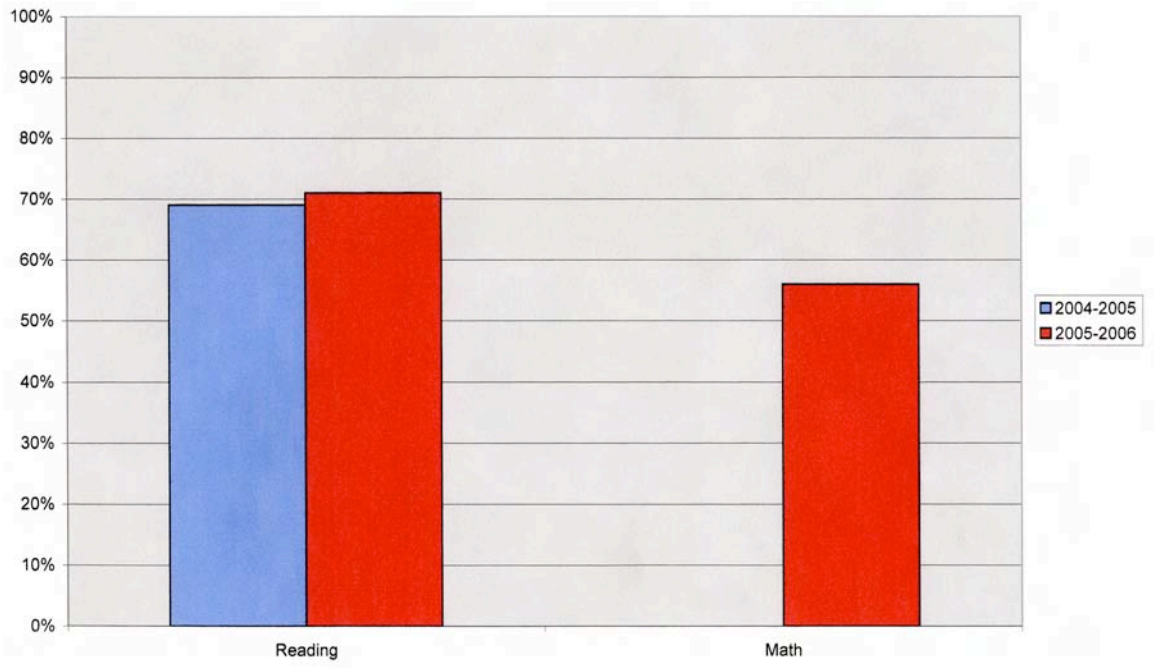


Chart 8-2: Passage Rates–Grade 6 Proficiency/OAT, 5 Years

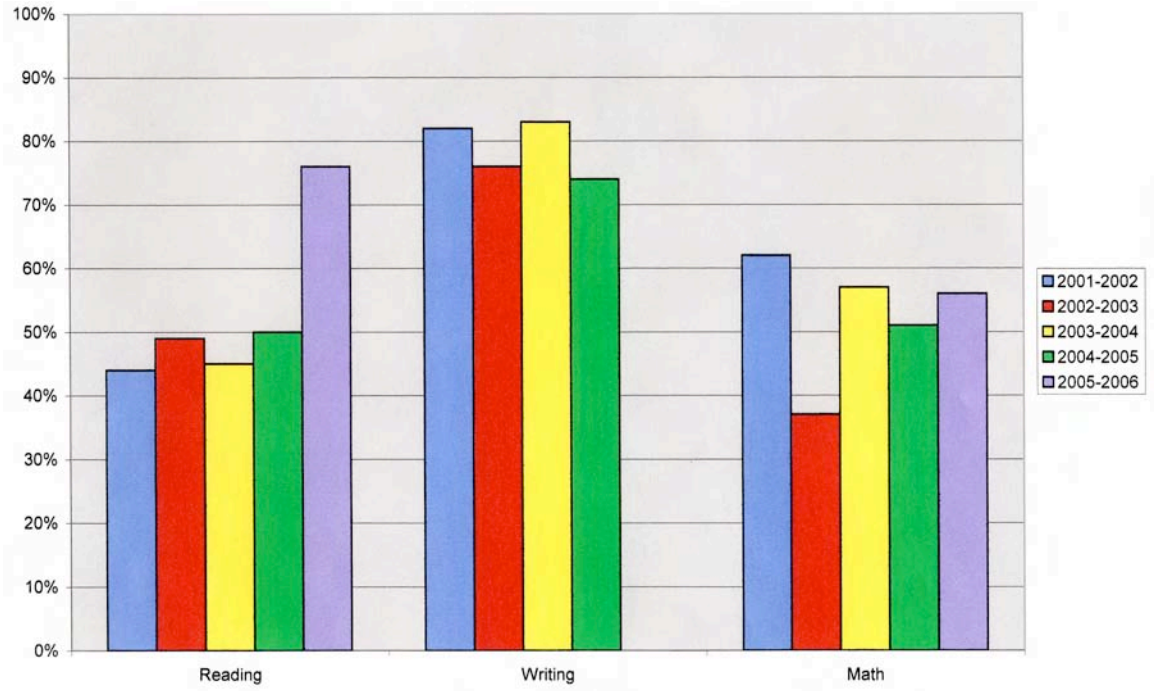


Chart 8-3: Passage Rates–Grade 7 OAT, 2 Years

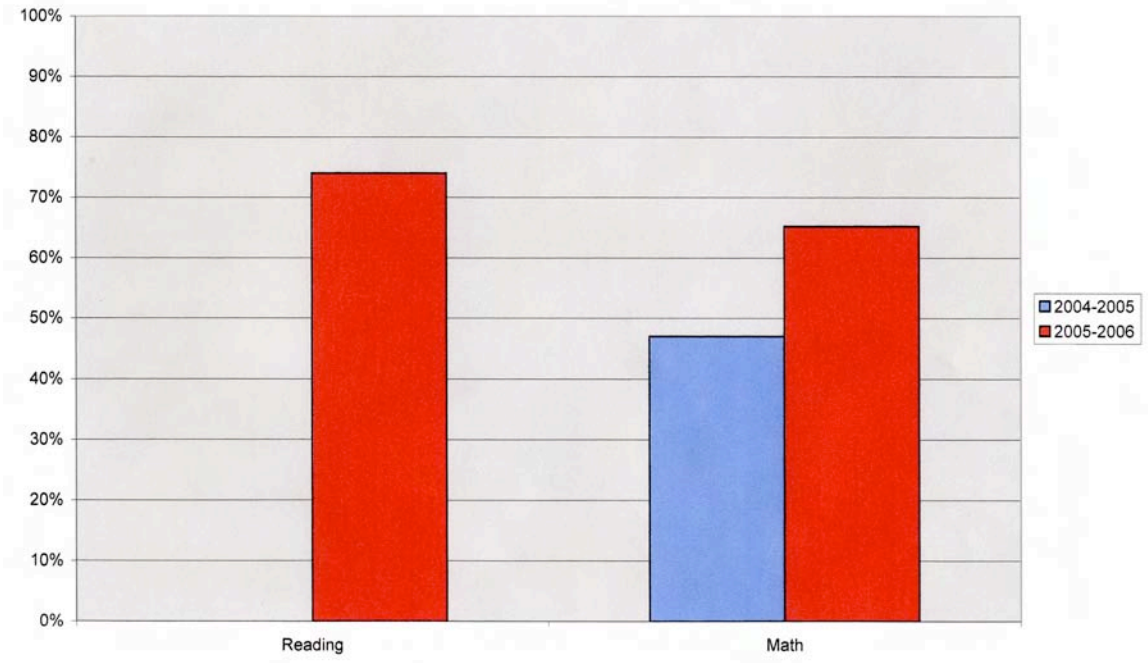
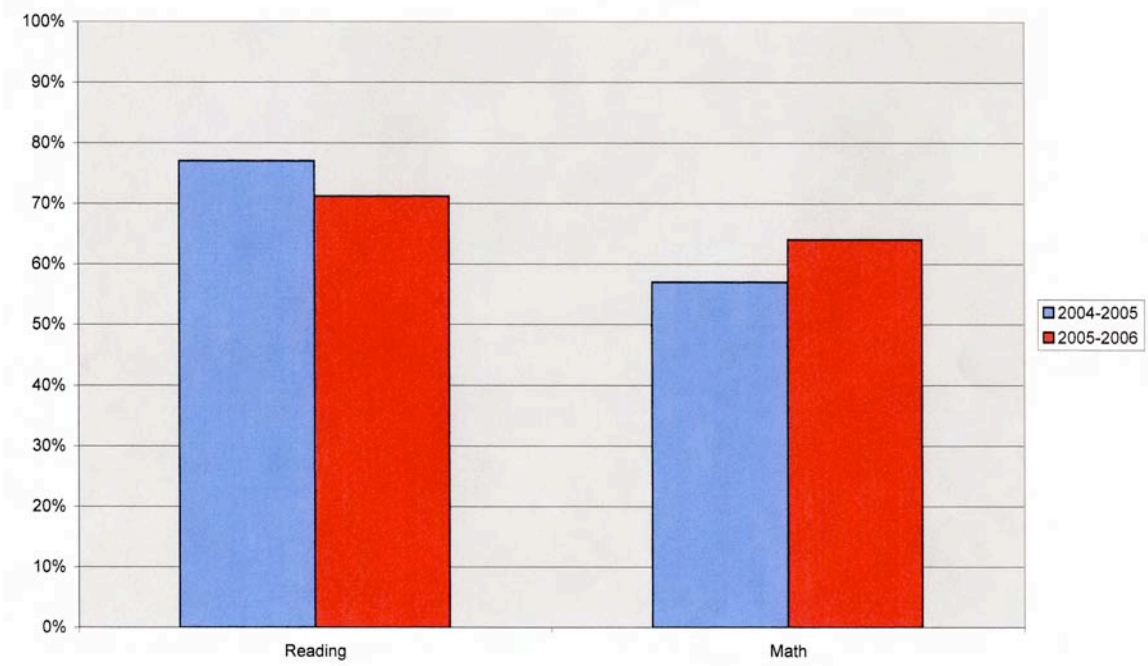


Chart 8-4: Passage Rates–Grade 8 OAT, 2 Years



Observation: It would be helpful to display the data vertically so that grade level characteristics could be observed from grade 2 through grade 8.

Recommendation: These data need to be looked at in a same grade vertical process to see what is needed in terms of special interventions to get each student to proficiency.

Summary of Findings

The middle school core content instructional time needs to be increased from 180 minutes to at least 240 minutes. The instructional patterns now in use need to be expanded and enlivened and the administrative arrangement needs to be changed so that the principals and teachers are working in a participatory manner by grade level to drive toward continuous improvement. Further, consideration needs to be given to broadening the academic expectations for all students so that many more are on track for advanced placement and dual credit. A professional development plan needs to be constructed to accomplish all of the above.

WASHINGTON HIGH SCHOOL

Teachers need not fear that they will be made obsolete. They will, however, feel increasing pressure to bring their methods--along with the curriculum--into line with the way the modern world works. That means putting a greater emphasis on teaching kids to collaborate and solve problems in small groups and apply what they've learned in the real world. Besides, research shows that kids learn better that way than with the old chalk-and-talk approach – Wallis, C. & Steptoe, S. (2006)[1]

Introduction

The author visited Washington High School on November 14, 2006 and on December 9, 2006. During the first visit, the author attended a portion of a late start professional development day that featured a presenter from the armed services and someone from the statewide professional educators' association.

During the second visit, the author attended an Interactive Media class and the homeroom in the AP calculus class. Because the calculus teacher was going to give a quiz, the author and the principal walked through the building and looked in on all classes. Later in the day the author and principal looked at a physical education class, the weight training facility, the gyms, students at lunch and students in study halls.

Mark Fortner, the high school principal, provided and discussed a copy of the Washington High School Improvement Plan for the 2006-2007 school year, ACT, AP and Report Card results data as well as a copy of the student handbook, course selection sheet, freshman course selection sheet, program of studies and two booklets published by the guidance office: Applying to College and Financial Aid Information, and Financial Aid Booklet.

This report on Washington High Schools is based upon a literature review, the visits, the conversations with Mr. Fortner, and a review of the data presented as well as the data collected from the Stark County Tech Prep Consortium by the Stark Education Partnership.

The report includes the following sections: Review of the Literature: High School; Observations and Recommendations; and Summary of Findings.

[1] Wallis, C. & Steptoe, S. (2006). How to bring our schools out of the 20th Century. *Time Magazine.* Available at: http://www.time.com/time/magazine/article/0,9171,1568480,00.html

Review of the Literature: High School

High School and Economic Success: High school is the focus of much of the educational literature today, largely because high school and college graduation are linked to the economic success of the community, the county and state in which the community resides, and the nation.

Everyone talks about the leaks in the P-16 pipeline and many have proposed solutions for the problem. Graduation from high school nationally is at less than 80% and some argue that those figures are inflated. Recently, the Bridgespan Group (October 2006) released a report that analyzes the leak from high school to college. The report states "…only one in three students who enter high school will receive a college degree (p. 2)." They go on to say that the case for low income students is worse: "…only one in seven will earn a baccalaureate degree (p.2)."[2] Yet, we know from Thomas Friedman's book,[3] college attainment is important to the future of our country. Increasing the high school to college going rate is important to our nation, to Ohio and in particular to Stark County, Ohio.

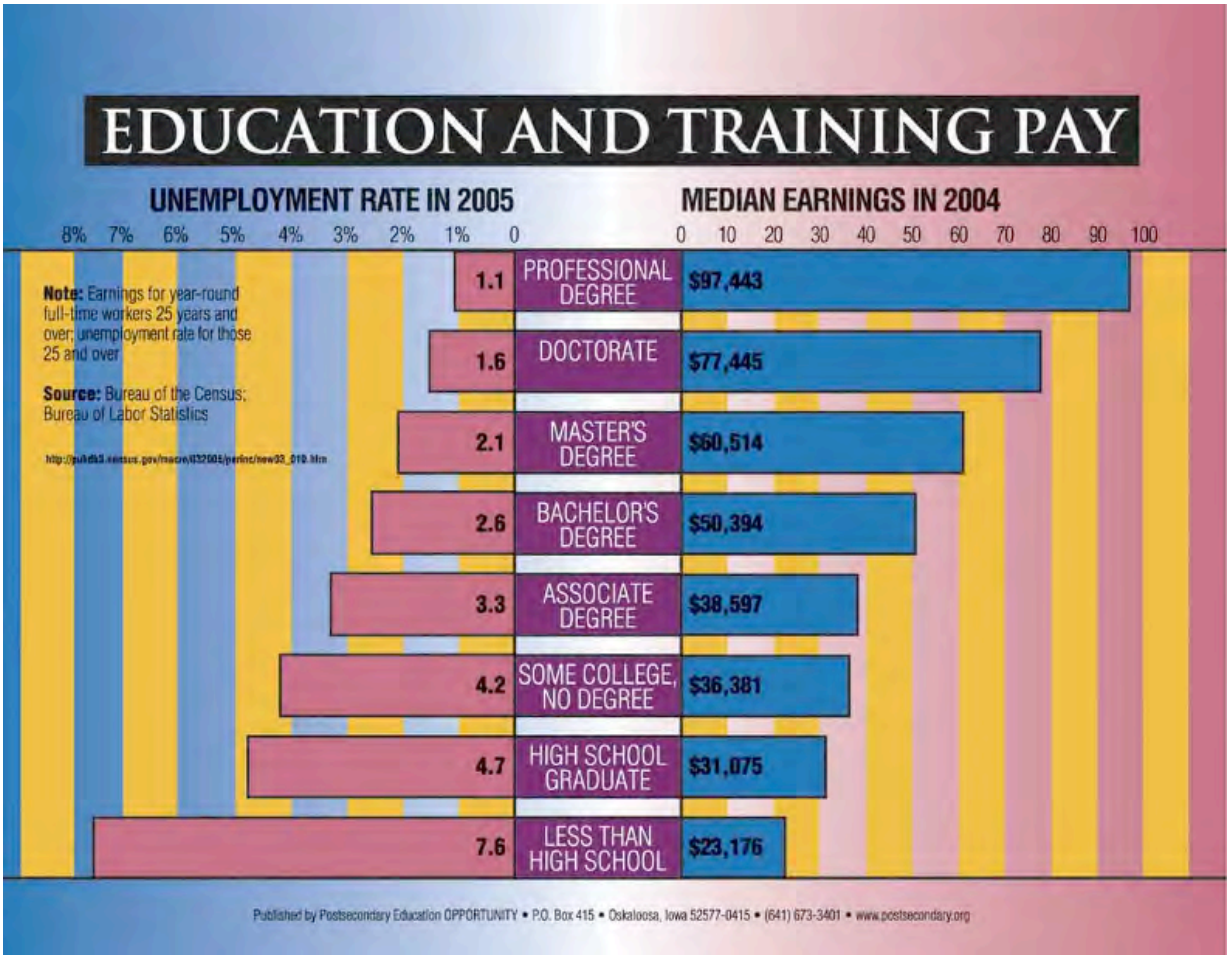
The economic impact of a high school focus with an emphasis on high school and college graduation can be simply illustrated. The chart below illustrates the fact that college graduates earn more: [4]

[2] Bedsworth, W., Colby, S., and Doctor, J. (2006). *Reclaiming the American dream*. The Bridgespan Group: http://www.bridgespangroup.org/kno_articles_americandream.html.

[3] Friedman, T. (2005). *The world is flat: A brief history of the twenty-first Century*. New York, NY: Farrar, Straus and Giroux.

[4] Postsecondary Education Opportunity. *Education and Training Pay*. (2005). http://www.postsecondary.org/archives/Posters/EdTrain05.pdf

Chart 9-1: Education and Training Pay



<u>Cost Benefit Analysis</u>: There are cost benefits[5] from making change at the high school level and creating to a culture where all students are on their way to some form of post-secondary education. One way to think about the cost benefit is to look at the entire county against national data and to imagine an increase in the number of students earning more within the county.

Taken together if we increased the college going rate in Stark County to a recommended rate of 80% of students going on to college directly from high school, Stark County would need to send 1200 additional students on to college. If all of them remained in Stark County and half obtained baccalaureate degrees and half obtained associate degrees, then in a relatively short period of time the overall picture of earnings in Stark County would change as depicted in the following table:

Table 9-1: Cost Benefit Analysis

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[5] *Mind Tools. (2006).* Cost/Benefit analysis: Evaluating quantitatively whether to follow a course of action. *<u>http://www.mindtools.com/pages/article/newTED_08.htm</u>***.**

	Associate	Baccalaureate	Total Benefit
Degree Median Earnings in 2004	$38,597	$50,394	
High School Diploma	$31,075	$31,075	
Difference between High School Diploma and College Degree Median Earnings	$7,522	$19,319	
One Year Difference x 600 students additional	$4,513,200	$11,591,400	$16,104,600
First Year of Difference	2009-2010	2011-2012	

Clearly our ranking as a county would change in the following table

Table 9-2: Top Educated U.S. Counties on the Basis of Baccalaureate Degree

County	BA	Rank	Advanced	Rank	Income	Rank	Child Poverty	Rank	Poverty	Rank	HS Grad	Rank	Population	Rank
Montgomery County, MD	57.4%	1	29%	1	$76,439	8	6.8%	203	5.6%	208	91.9%	22	873,000	49
Fairfax County, VA	56.3%	2	27%	4	$80,753	5	4.7%	222	4.2%	225	90.7%	41	970,000	36
Boulder County, CO	56.0%	3	25%	7	$60,652	44	7.6%	194	8.0%	169	93.0%	10	291,000	194
Howard County, MD	54.6%	4	28%	2	$88,555	2	2.4%	232	3.4%	229	92.5%	14	248,000	234
New York County, NY	52.3%	5	25%	6	$47,415	112	31.9%	12	19.6%	16	81.0%	198	1,537,000	17
Washtenaw County, MI	50.5%	6	28%	2	$52,330	77	14.4%	121	13.1%	78	93.6%	6	323,000	179
Johnson County, KS	50.4%	7	17%	19	$63,155	31	6.5%	207	4.8%	216	94.7%	2	451,000	131
Collin County, TX	48.8%	8	16%	31	$71,485	9	7.6%	194	6.2%	195	90.8%	40	492,000	113
San Francisco County, CA	48.6%	9	20%	13	$57,833	57	11.5%	151	9.5%	141	86.3%	127	777,000	62
Somerset County, NJ	48.2%	10	22%	9	$89,289	1	2.0%	233	1.7%	233	92.1%	19	297,000	190
Franklin County, OH	34.6%	67	12.6%	68	$45,140	129	18.0%	78	13.0%	80	88.7%	77	1,069,000	33
Stark County, OH	19.9%	209	5.2%	229	$38,703	194	14.2%	127	9.4%	143	88.1%	88	378,000	155

Red = Best ranking in specific category
Data from US Census 2003 Community Survey reflects estimate subject to +/- error less than 3%.
Population ranking is from the 2000 census

253,000 are 25 and over
2,530 one percent

<u>Creating a New High School Culture</u>: Many are recommending that a new culture be created for high schools. The author posits that the change is necessary because high schools have a long history of being in compliance with the requirements, often labeled as state standards and high stakes graduation tests, issued by the state department of education. Progress in the high school has been measured with regard to those compliance requirements and progress usually has been made. However, is not

sufficient as a direction for or measurement of the effectiveness of the high school. The state standards are usually democratically developed and do not reflect 21st century demands that will be made of today's students.[6] Further, the graduation tests have politically determined cutoffs—i.e. each year the state education department changes the minimum accepted cutoff score so that enough students pass the test to show progress in the state. Many states are now changing to use of the ACT test as a measure of school and student progress against a nationally determined set of criteria and testing results.[7]

While some think that existing schools are difficult to change and therefore recommend the creation of new ones[8], this author is inclined to say, from experience, that as existing school faculty review the literature and the data they will create a new culture together with the leadership of the schools, the students in the schools and the parents and community that represent the schools. The first piece that the existing faculty will recognize is that 100% of the high school students must graduate from high school. Strategies will be designed to make this happen.

100% high school graduation as a line of thinking is similar to the Six Sigma thinking in business where Six Sigma strives for perfection—no more than 3.4 defects per million opportunities, and Lean Manufacturing looks at ways to lower costs in manufacturing processes and keep Six Sigma characteristics.[9]

As the faculty, leadership and the parents and community that represent the schools examine the data they will come to another conclusion. They too will want to be "Best in Class" with "Big, Hairy Audacious Goals (BHAGS),[10] They will redesign their courses and create a new culture in the high school knowing that global competition as described by Thomas Friedman, in *The World is Flat*, will require that the students are prepared to be innovative. In other words, unless the students are well educated and facile with technology, they will be unable to be prosperous because to be well educated in the future will mean that students will be able to find new information and manipulate old and new knowledge to create new knowledge.[11] Richard Stoff, President of the Ohio Business Roundtable State Education Department, makes this notion clear in the graphic that follows:

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[6] Finn, Jr., C.E., Julian, L. & Petrill, M.J. (2006). *The State of State Standards*. Washington, D.C.: Fordham Foundation.

[7] Rochford, J. (2004). *Advancing Ohio's P-16 Agenda: Exit and Entrance Exam*. Canton, Ohio: Stark Education Partnership, Inc.

[8] See descriptions of Gates Foundation Projects and charters.

[9] Six Sigma—What is Six Sigma? http://www.isixsigma.com/library/content/six_sigma_dmaic_quickref_define.asp#deliverables

[10] Collins, J. (2001). *Good to Great*. New York: Harper Collins Publishing, p. 197-204.

[11] From a presentation by Richard Stoff, President, Ohio Business Roundtable at *the Moving Stark County into Prosperity Symposium* on January 18, 2007 at R.G. Drage Career Center.

Figure 9-1: I + T = P

In this new culture, students will recognize that they can go to college and that they can improve their ACT scores sufficiently to earn scholarship dollars. In other words they have control over their future:

> Taken together, these findings argue strongly for creating schools with an effective college-going culture. Simply put, this means that the school functions with the expectation that its ultimate goal is to prepare students for college, and that a student who will not attend some sort of post-secondary institution is the exception rather than the rule. Creating this culture in America's High Schools is what will begin to turn the tide in improving college matriculation and graduation for all students, and low-income students in particular.[12]

The pathway from high school to college will be seamless in this new culture. Many are working on making a seamless transition. At the federal level, the U.S. Secretary of Education's Commission on the Future of Higher Education[13], citing the "complex interplay of inadequate preparation, lack of information about college opportunities, and persistent financial barriers" has called for outlining ways in which postsecondary institutions, K–12 school systems, and state policymakers can work together to create a seamless pathway between high school and college.

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[12] Bedsworth, W., Colby, S., and Doctor, J. (2006). *Reclaiming the American dream*. The Bridgespan Group: http://www.bridgespangroup.org/kno_articles_americandream.html.

[13] U.S. Department of Education, *A Test of Leadership: Charting the Future of U.S. Higher Education*. Washington, D.C., 2006.

At the state level, the Governor's Commission on Higher Education and the Economy[14] has established a state goal for Ohio to increase college enrollment 30% by 2015. Significant access, achievement and college attainment gaps exist with both minority[15] and learning disabled students in Ohio's high school population. These gaps are not limited to Ohio and the new regulations implementing the reauthorization of IDEA require transition planning to postsecondary education[16] for high school students with disabilities.

One of the solutions to the access to college problem has been to create dual credit opportunities for students in high school. Ohio currently finds itself in a highly competitive situation with states such as Florida, Virginia, Illinois and Washington where dual credit participation rates have substantially increased, particularly among minority students.[17]

The 126th Ohio General Assembly created the Ohio Partnership for Continued Learning[18] and charged that council with conducting a comprehensive study of existing opportunities for students to earn college credits while still in high school, and with developing specific recommendations for removing the financial, cultural, and organizational barriers that prevent institutions from providing more Ohio students with the opportunity to participate in these programs.

The Ohio General Assembly has allocated, in support of the Ohio Core, up to $3,600,000 in fiscal year 2007[19] to be distributed to school districts to be used to obtain contracted instruction with institutions of higher education in mathematics, science, or foreign language for high school students that results in dual high school and college credit. Stark County, in combination with Wayne and Columbiana counties submitted a proposal that will enable 400 high school students in Summer 2007 to earn high school and college credit.

An increasing body of evidence through Ohio programs such as Canton's Early College High School and Stark County's Summer Scholars[20] supports the capacity of all students to be successful in completing rigorous college coursework for dual credit when supported by a high school and college team teaching model.

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[14] Pogue, R.W., Chair (2004). *Building on Knowledge, Investing in People: Higher Education and the Future of Ohio's Economy.* Columbus: State of Ohio. Report of the Governor's Commission on Higher Education and the Economy.

[15] (2004). *Education Watch: Ohio Key Facts and Figures*. Washington, D.C.: The Education Trust.

[16] (2006) § 300.704 State-level activities. United States of America. *Federal Register / Vol. 71, No. 156 / Monday, August 14, 2006 / Rules and Regulations: Department of Education 34 CFR Parts 300 and 301 Assistance to States for the Education of Children With Disabilities and Preschool Grants for Children With Disabilities; Final Rule*. The language in Section 614 mandates secondary personnel to provide "recommendations on how to assist the child in meeting the child's postsecondary goals" IDEA § 614, H.R.1350, (c)(5)(B)(ii).

[17] Hoffman, N. and Robbins, A. (2005). *Head Start on College: Dual Enrollment Strategies In New England 2004–2005*. Boston: Jobs for the Future.

[18] SB 6

[19] HB 115, SB2

[20] Results compiled by Stark State College of Technology

Current polls show that parents and community members support dual credit. Voices and Choices is an extensive civic engagement project supported by The Fund for our Future. More than 900 people from northeast Ohio met at The University of Akron on September 16, 2006 to discuss how to solve previously identified challenges. The top ranking solutions were:

1. Advocate for the state of Ohio to shift how it funds public schools to ensure that all schools have adequate resources.
2. Invest in internship and mentoring programs to provide students with work experience that is focused on the needs of businesses.
3. Advocate for the State of Ohio to increase funding for higher education so that tuitions can be lowered and scholarships made available for those with the greatest needs.
4. Advocate for the State of Ohio to develop a health care system that provides health care coverage for all to reduce burden on businesses.
5. Invest in establishing a region-wide association of local and regional planning agencies to coordinate regional planning, collaborate on the creation of a common U.S. Census definition of the Northeast Ohio region, and enhance our capacity to understand and influence our collective future.
6. Invest in creating a region-wide land use and development plan to address patterns of growth and decline at a regional level and to provide a framework for long-term development of the region.
7. Invest in programs that enable high school students to take college-level courses at no cost to the student and with special emphasis on potential first-generation college students.
8. Expand and create organizations (called incubators) that support the growth of small businesses in the region through advice from experts, networking opportunities and other support programs.

The KnowledgeWorks Foundation 2006 Opinion Poll shows nearly 90% of people in Ohio support dual credit[21]

If current policy discussions revolving around pre-school, dual credit, and skills development grades 11 through 14, result in action, then it is highly unlikely that the student born in 2006 will have an educational experience resembling that of older students. The following table assumes implementation of current policy discussions—a movement of grade 14 downward by one year. If that pace continues to accelerate over the next 20 years, it is quite likely that a student born in 2006 will have completed a

[21] Available at www.kwfdn.org/

baccalaureate degree by age 19 and will be engaged in, or have completed a master's degree by age 21.

Table 9-3: Implementation of 2006 Policy Discussions on Future Grade Levels (by skills) of Student Born in 2006

Year	Age	Current Grade	Future Grade (by skills)
2027	21	16	17
2026	20	15	16
2025	19	14	15
2024	18	13	14
2023	17	12	13
2022	16	11	12
2021	15	10	11
2020	14	9	10
2019	13	8	9
2018	12	7	8
2017	11	6	7
2016	10	5	6
2015	9	4	5
2014	8	3	4
2013	7	2	3
2012	6	1	2
2011	5	K	1
2010	4	Pre-School	K
2009	3		Pre-School
2008	2		
2007	1		
2006	Birth		

The New 3R's in High School: Current literature strongly suggests that outstanding High school performance with excellent achievement results from a focus on the new three R's: rigor, relationships and relevance. Access to technology for all students is important in this new environment. Instruction changes in this environment. Teachers no longer "stand and deliver" instruction to passive students, rather the students are engaged and responsible for their learning. Above all, this new environment is one where it is expected that all students are college bound (2 year, 4 year, military or some form of apprenticeship requiring college courses).

Professional development is coordinated and specific to organizing instruction in this new environment. All "drive-by" professional development sessions are ended and teachers propose plans for school-wide professional development to their department chairs and principal.

Data is used to describe progress in this environment. Dashboards are often created to show progress at a glance.

Rigor: Rigor is the easiest of the new 3R's to describe and validate. Highly performing high schools are no longer "shopping mall" high schools. In other words, expectations are higher and tracking is usually limited to college bound and honors college bound. Course choices are more limited than before and every course that is offered is concentrated on developing 21st century skills that can be utilized by the student in the next step of the educational ladder—some form of post-secondary education—a two or four year college or university; further education through the military; or further education through an apprenticeship.

Specifically, according to the Partnership for the 21st Century, our students need:

1. Information and communication skills;
2. Thinking and problem-solving skills;
3. Interpersonal and self-direction skills;
4. Global awareness;
5. Financial, economic, and business skills; and
6. Civic literacy.[22]

Ohio's New Core Curriculum: Ohio has acted to create a more rigorous high school curriculum. The result is the new Core Curriculum—a college bound curriculum for all—passed by the legislature in December 2006 and signed into law on January 3, 2007 by Governor Taft. The Ohio Core is required to be in place for all 5th grade students in the 2006-2007 school year (graduating in 2014). The following information describes the new Ohio Core and was taken from the press release issued by Governor Taft's Office:

The Ohio Core includes:

- 4 years of math, including Algebra II or its equivalent;
- 3 years of science with inquiry-based laboratory experience, including physical science, biology, and advanced study in one or more of the following sciences: chemistry, physics or other physical science; advanced biology or other life science; astronomy, physical geology or other earth or space science;
- 4 years of English;

[22] Available at: http://21stcenturyskills.org

- 3 years of social studies, including American History and American Government;
- ½ unit of health;
- ½ unit of physical education or two semesters of; and
- Combination of 5 units to be chosen from among foreign language, fine arts, business, technology and Career Technical.

Schools are to formally integrate economics/financial literacy into the social studies requirement or as a stand-alone class to ensure that every student is exposed to these important concepts. Economic and financial literacy standards already exist within the social studies academic content standards.

Students must complete two semesters of fine arts sometime between grades 7 and 12 as a requirement of graduation.

Districts may choose to excuse students who participate in at least two full seasons of interscholastic athletics, marching band, or cheerleading from the ½ unit physical education requirement. The student must, however, complete ½ credit in another course of study in its place.

Recognizing the importance of foreign language in today's competitive global economy, a Foreign Language Education Council, comprised of education and business leaders will be tasked with developing and recommending a plan for foreign language learning across Ohio's P-16 education spectrum.[23]

Technology and Rigor: In this more rigorous high school environment, students are asked to perform at high levels, but support is provided to them through relationships with a caring adult who monitors their performance and through various support mechanisms, using technology, provided during the school day to support student learning.

In a rigorous, technology rich environment with caring relationships, the school day is restructured and usually doesn't have study halls located in a large room. Instead, students have choices to select the support that they need to succeed with the rigorous school work. Often those choices are monitored by a teacher mentor who may be the student's homeroom teacher.

A more complete discussion of the use of technology in a rigorous academic environment is contained in this study in the chapter entitled: Curriculum and Technology.

[23] A complete description is available at the Partnership for Continued Learning, http://www.pcl.ohio.gov/jcore/pcl/HomeContent.jsp

Relevance is best described as the student's growing ability to not just master information in discrete bits, but to find new information and then to manipulate all information—new and old, to create new knowledge. In this relevant environment, the talents of many more students are discovered, encouraged and led to new places.

Relationships are established and nurtured to insure that no student is anonymous. "Perhaps the most fundamental feature of an effective learning environment is the presence of adults who demonstrate genuine interest and belief in the youth who participate. 'Teachers who care' is the usual response of young people to the question of what they most want in a learning environment."[24]

The Search Insititute® has identified building blocks of healthy development called Developmental Assets. Among them are support from three or more non parent adults and a caring school climate.[25]

A caring school climate is the framework for academic and social success. "Teens are developing academically, socially, emotionally and physically. . . Students will tune in or tune out based on how we engage them in each of those areas. These are not independent silos that can be filled when we see fit. Learning is not the highest of priorities when a student's parent loses a job, has health problems, or there are stresses related to divorce, or when a student is homeless , or a student doesn't get invited to a dance or party or when a student did not make the cut for the band, the play or the soccer team. [The] challenge is to ensure that the issue is appropriately confronted so that learning can again become a priority. A quick look at the potential items that interfere with learning [indicates] that on any given day, one-quarter of all students are somehow distracted from learning." [26]

Student/teacher rapport is only one aspect of the relationship piece. Daggett's research demonstrates that teacher/teacher relationships are pivotal to student success and building toward school goals. "Strong relationships are critical to rigorous work for students. Relationships are important because students are more likely to make a personal commitment to engage in rigorous learning when they know that teachers, parents, and other students actually care how well they do. They are willing to continue making the investment when they are encouraged, supported, and assisted—much the same way that a personal trainer might work with an exerciser who lack the will or confidence to continue.[27]

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[24] Steinberg, Adria and Allen, Lili. *From Large to Small: Strategies for Personalizing the High School*. Jobs for the Future

[25] Search Institute. *40 Developmental Assets® for Adolescents (ages 12-18)*

[26] Breaking Ranks II: Strategies for Leading High School Reform NASP

[27] Daggett, William. 2004. Case Studies of Successful Programs, 2004 Model Schools Conference Proceedings. II – 26

High School Organizational Structure and the New 3R's: The experts still differ about the best organizational scheme to use to create a high performing high school environment with rigor, relationships and relevance. Some would recommend "small," meaning the division of large high schools into smaller schools. The purpose of "small" is to be sure that all students have opportunities for quality time with caring adults. The schools follow the rule that all types of students are located in each school. Thus, you will not find examples of "gifted" small schools within large high schools. Often the school schedule is reconstructed so that more time is provided for classroom instruction—sometimes through block scheduling. In Stark County you can see variations on the "small" theme with freshman academies in many of the districts and academies or small schools in grades 10-12 in Canton City and Plain. Washington High School is large enough to consider the possibility of using a similar scheme and creating a freshman academy and two or three small schools that begin at 10th grade.

Often the problems encountered by small schools involve vertical core content integration. It is more difficult to meet by department when the small schools are operational. Some have solved this problem with literacy and numeracy plans that cross subject areas and departments and extend from the middle school to the high school. These are not inter-disciplinary plans but rather are attempts to address the huge reading and math competency needs that are emerging in most high schools today. Taken as a whole, high school students do not read with sufficient proficiency, nor do they understand mathematical principles sufficiently to function well in the 21st century world of the future.

ACT Test and EPAS System: **T**he ACT test represents a critical gateway to college. Scores of 22 or higher begin to eliminate the need for taking remedial coursework; composites of 24 or higher begin to open the door for scholarship opportunities.

In Ohio, as in the nation, there is a direct relationship between academic coursework and how well students perform on the ACT test. Students who take a solid academic core of courses while in high school (four years of English, three years of math, science, and social studies) do substantially better.

Table 9-4: Five Year Trends—Average ACT Scores by Level of Preparation

					Average ACT Scores									
	Tested		Percent[1]		English		Mathematics		Reading		Science		Composite	
Grad Year	*Core or More*	*Less than Core*	*Core or More*	*Less than Core*	*Core or More*	*Less than Core*	*Core or More*	*Less than Core*	*Core or More*	*Less than Core*	*Core or More*	*Less than Core*	*Core or More*	*Less than Core*
2002	47,420	27,180	61%	35%	21.7	18.6	22.3	19.1	22.9	20.0	22.4	19.9	22.4	19.5
2003	48,768	28,185	60%	34%	21.7	18.6	22.2	19.2	22.7	20.2	22.3	20.0	22.4	19.6
2004	49,126	27,427	60%	34%	21.7	18.8	22.1	19.3	22.7	20.2	22.3	20.1	22.4	19.7
2005	47,830	27,185	59%	34%	21.8	18.9	22.2	19.4	22.8	20.3	22.3	20.1	22.4	19.8
2006	46,872	27,594	57%	34%	21.9	19.1	22.3	19.6	22.8	20.5	22.3	20.2	22.4	20.0

[1]Percent of all students tested. Numbers will not add up to 100% due to student non-response.

Further, there is an additional relationship between how well students score on the ACT[28] and whether or not they complete college in a timely manner, or at all.

The six-year graduation rate for students in Ohio scoring below 18 on the ACT is 34%, compared to 73% for students scoring 25 and higher. The six-year overall degree attainment rate for minorities is 29%, compared to 47% for non-minorities. Six-year graduation rates for students taking remedial courses in their freshman year are half as high as those for students not taking remedial courses (27% vs. 53%).[29] Hence, substantial numbers of students and student sub-populations are at risk in the state.

The ACT test is only one of the three tests in the Educational Planning and Assessment System (EPAS) testing system available to districts. EXPLORE is normally given at the 8th grade, PLAN at the 10th, with the ACT at 11th or 12th grades. All three tests are linked together with college readiness standards. Teachers and students both receive rich diagnostic data and information from the tests that help guide instruction and learning.

Evidence (ACT, 2006) has consistently suggested that widespread use of ACT's EPAS system is also positively correlated with increases in student enrollment and success at colleges and universities, particularly among low income and minority students.[30] ACT also indicates that, "Students who participate in <u>all three EPAS tests</u> score 0.6 to 1 score point higher on the ACT subject tests, and 0.7 point higher on the ACT Composite, than students who do not participate in all three programs, regardless of the high school they attend".[31]

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[28] Rochford, J. (2005) *A Qualitative Meta Analysis on the Planning and Sustaining of Small Learning Communities.* Canton, Ohio: Stark Education Partnership, Inc.

[29] (2005). Six-Year Enrollment Patterns and Outcomes: Fall 1998 Cohort of First-Time Freshmen. Columbus, Ohio: Ohio Board of Regents, p.2.

[30] (2006). EPAS: A System that Works. Iowa City: ACT, Inc.

[31] Ibid, p.2

Observations and Recommendations

High School Graduation Rate

Data Analysis: Although in some years, the graduation rate at Washington High School was very close to the state standard of 90%, the graduation rate has not yet reached the state requirement of 90%.

For future students in Massillon City, the high school graduation rate should be above the state requirement and the ideal would be a graduation rate of 100%.

Table 9-5: High School Graduation Rate in Massillon City Schools

Year*	Graduation Rate
2002-2003	88.9%
2003-2004	89.1%
2004-2005	87.5%
2005-2006	To be determined
2006-2007	To be determined

* Reported in the next year

Recommendation: A planning process, led by teacher leaders together with the principal, should occur during the latter part of the 2006-2007 school year to examine the ways that other Stark County high schools have achieved a better than 90% graduation rate and increased rigor by eliminating the general track with all students considered college bound. The resultant plan should be started in the 2006-2007 and continued in the 2007-2008 school year.

Ohio Graduation Test

Data Analysis: The 10th Ohio Graduation Test (OGT) replaced the 9th grade proficiency examinations and is a high stakes graduation test. Students who do not pass this examination are not be able to graduate from high school with the exception of a limited number of students who qualify for an alternative assessment.

In preparation for this new requirement, many school districts eliminated the general track and moved Algebra and General Science to the 8th grade for all students. Washington High School did not change the traditional course pattern.

On the 2005-2006 high school report card, Washington High School consistently scored at a lower level than similar districts except on high school graduation, attendance and 11th Grade Reading.

Table 9-6: 2005-2006 Ohio Graduation Test – Percentage of Students at and Above Proficient Level in Washington High School Compared to District and Similar Districts

Ohio Graduation Test	Washington High School	Massillon City School District	Similar Districts
10th Grade (State Requirement 75%)			
Reading	**87.6%**	**87.2%**	**88%**
Writing	**79.2%**	**78%**	**86.3%**
Mathematics	**76.8%**	**77.1%**	**81.5%**
Science	60.8%	60.3%	69.5%
Social Studies	71.9%	70.7%	**77%**
11th Grade (State Requirement 85%)			
Reading	**94%**	**93.8%**	**93.5%**
Writing	**87.2%**	**86.8%**	**91.7%**
Mathematics	**87.4%**	**87%**	**88.3%**
Science	76.7%	75.7%	80.5%
Social Studies	83.7%	83.3%	84.4%

Source: Ohio Department of Education; Washington High School Report Card 2005-2006

*Please Note: **Bold** means that standard was met*

Recommendation: To raise student performance and capture all 10 Ohio Graduation Test indicators, it is recommended that by the beginning of the 2007-2008 school year, the course selections be changed to raise rigor by eliminating all general track classes and moving algebra and general science to the 8th grade for all students.

ACT Scores

Data Analysis: As the following charts show, the ACT average scores at Washington High School, in every case, are below the state average. The 2005-2006 composite score of 19.5 is below the state average of 21.5. Further, fewer Washington High School students are college ready and in every course sequence comparison, Washington High School students score below the state average.

Table 9-7: Five Year Trend – Washington High School Average ACT Scores Compared to State Average

Graduation Year	Local	State Average
2001-2002		
# Tested*	145	78,002
# of Graduates**	256	
% Tested***	57%	
College Going Rate in Ohio**	49%	
Average English Score*	18.7	20.6
Average Mathematics Score*	19.6	21.2
Average Reading Score*	20.3	21.8
Average Science Score*	20.6	21.5
Composite Score*	19.9	21.4
2002-2003		
# Tested*	153	81,710
# of Graduates**	280	
% Tested***	55%	
College Going Rate in Ohio**	49%	
Average English Score*	18.6	20.6
Average Mathematics Score*	19.4	21.1
Average Reading Score*	20.4	21.8
Average Science Score*	20.1	21.4
Composite Score*	19.7	21.4
2003-2004		
# Tested*	166	81,510
# of Graduates**	320	
% Tested***	52%	
College Going Rate in Ohio**	44%	
Average English Score*	19.9	20.7
Average Mathematics Score*	20.3	21.1
Average Reading Score*	21.4	21.9
Average Science Score*	21.0	21.5
Composite Score*	20.8	21.4
2004-2005		
# Tested*	156	80,732
# of Graduates**	To be determined	
% Tested***	To be determined	
College Going Rate in Ohio**	To be determined	
Average English Score*	19.7	20.7
Average Mathematics Score*	19.6	21.2
Average Reading Score*	20.8	21.9
Average Science Score*	20.7	21.5
Composite Score*	20.3	21.4

(continued) ***Table 9-7: Five Year Trend – Washington High School Average ACT Scores Compared to State Average***

Graduation Year	Local	State Average
2005-2006		
# Tested*	140	81,564
# of Graduates**	To be Determined	
% Tested***	To be Determined	
College Going Rate in Ohio**	To be Determined	
Average English Score*	18.9	20.8
Average Mathematics Score*	19	21.3
Average Reading Score*	19.8	21.9
Average Science Score*	19.9	21.5
Composite Score*	19.5	21.5

*Sources: *ACT College Readiness Report for Washington High School July 2006*
***Ohio Board of Regents*
****Author Calculated*

Table 9-8: Percent of Washington High School ACT-Tested Students College Ready Compared to State Average

ACT	Washington High School 2006 Scores	State Average 2006
Numbers of students taking test	140	
Composite Score	19.5	21.5
% of Students College Ready		
College English Composition	57%	71%
College Algebra	24%	45%
College Social Science	41%	56%
College Biology	19%	30%
Meeting All 4	12%	24%

Source: ACT College Readiness Report for Washington High School July 2006

ACT has determined that college readiness benchmark scores in subject areas and indicate a 50% chance of students obtaining a B or better or a 75% chance of obtaining a C or better in a college credit bearing course.

Table 9-9: Average Washington High School Math ACT Scores by Course Sequence

Course Sequence	Average Math ACT Score	State Average Math ACT Score
Algebra 1, 2; Geometry; Trigonometry; Calculus	23.0	25.3
Algebra 1, 2; Geometry; Trigonometry; Other	20.3	22.5
Algebra 1, 2; Geometry; Trigonometry	17.5	20.8
Algebra 1, 2; Geometry;	16.0	18.3
Less than 3 years	16.9	17.9

Source: ACT College Readiness Report for Washington High School July 2006

Table 9-10: Average Washington High School Science ACT Scores by Course Sequence Compared to State Average

Course Sequence	Average Science ACT Score	State Average Science ACT Score
General Science; Biology; Chemistry; Physics	22.4	23.0
Biology; Chemistry; Physics	19.0	24.3
General Science; Biology; Chemistry	19.2	20.7
Less than 3 years	17.9	19.6

Source: ACT College Readiness Report for Washington High School July 2006

Recommendation: Significant work must be done to change the below average college ready status of the students in Washington High School. Eliminating the general track courses by 2007-2008 will help, but the rigor of the remaining courses must be carefully examined by answering the following questions: Is enough reading assigned? Are students engaged with content and finding new information? Are students asked to apply knowledge or merely to recite facts?

Advanced Placement Courses and Test Scores

Data Analysis: 6 of 36 available Advanced Placement Courses are offered at Washington High School. Often the students enrolled do not take the Advanced Placement examinations and those who do take the tests rarely score at 3 or above on the Advanced Placement examinations. In order to obtain college credit for the course, an examination score of 3 or above is necessary.

Table 9-11: Washington High School 2006 Advanced Placement Courses, Numbers of students taking the Advanced Placement Examination and the Average Examination Score

Name of Course	Number of Students Taking Examination	Average Examination Score
Art – 2D	3	3.3
Calculus AB	23	1.739
Chemistry	13	1
English Literature/Composition	20	2.8
Government and Politics US	33	1.953
Studio Art Drawing	1	2
US History	4	2.5

Source: CollegeBoard AP Grade Reports, Washington High School 2006

Recommendations: All students taking AP classes should be taking the Advanced Placement tests and all should be scoring at 3 and above. Students need to know that college will withdraw acceptances if they do not take the tests and that only if they score a 3 will they obtain college credit.

Besides looking at student motivation, the rigor of the Advanced Placement courses and the instructional methodology used in these classes must be examined. The average scores can no longer continue to be in the range of 2. This does not serve students well.

To be competitive with area high schools, the number of AP courses should be increased. By the 2007-2008 school year, at least three additional Advanced Placement courses should be added to the Washington High School curriculum. This could be easily done by converting French IV, Spanish IV and V, and Computer Programming to Advanced Placement courses.

Massillon City Schools College Going Rate in Ohio

Data Analysis: While the data from the Ohio Board of Regents is only through the 2002-2003 school year, analysis of the data show that Washington High School students in the fall of 2003, 2002 and 2001 went on to college at a lower rate than the average rate in Stark County. The percent of students needing remediation in college was greater than the Stark County average. The rate of persistence from the first year of college to the second year of college was at or exceeded the Stark County average.

Table 9-12: Massillon City Schools College Going Rate in Ohio Compared to Stark County Average

College Going		Massillon City Schools	Stark County Average
2001	High School to College Going Rate in Ohio	35%	49%
	% Needing Remediation	49%	41%
	% Persistence 1 Year +	75%	82%
2002	High School to College Going Rate in Ohio	47%	52%
	% Needing Remediation	52%	41%
	% Persistence 1 Year +	83%	81%
2003	High School to College Going Rate in Ohio	37%	50%
	% Needing Remediation	57%	42%
	% Persistence 1 Year +	83%	83%

Source: Ohio Board of Regents Transition Reports

Recommendations: The rate of students going on to college from Washington High School should increase. All students should take the ACT so that they become familiar with the tests that will determine whether or not they are going to need remediation in college. Teachers should study the ACT test and the student online results to see if there are adjustments to be made in 11th and 12th grade courses with respect to rigor. Specific targets should be set to increase the high school to college going rate as well as decrease the remediation rate.

Dual Credit

Data Analysis: The Public Post-Secondary, Department of Education, School Finance Division shows that 10 students from Washington High School took a post secondary course in the 2005-2006 school year. Five of the students attended Kent State Stark and 5 attended Stark State. The Summer Scholars program, run through the auspices of the Stark County Educational Service Center, in partnership with Stark State College of Technology and paid for by the Stark Education Partnership enrolled 8 students from Massillon.

Recommendations: The number of students involved in a dual credit opportunity should be increased significantly. The next opportunity to enroll students will happen through the House Bill 311 proposal that is sponsored through the Stark County Educational Service Center.

Career and Technical Courses

Data Analysis: The Stark County Tech Prep Consortium, the sponsoring agency for Stark County Tech Prep classes, has grown from serving 18 students in 1993-1994 to serving over 1300 in the 2006-2007 school year. In the fall of 2005, the consortium served 1107 at the high school level and in fall 2006, over 1300 students were enrolled—a gain of 15%. By comparison, Washington High School's participation in this consortium has remained flat in the fall of 2005 and the fall of 2006 with 101 and 103 students respectively.

Washington High School participated in four tech prep programs out of a total of 22 possible programs. As of December 6, 2006, Washington High School was not on the list to expand programs for the 2006-2007 school year. At this time, it is the intention that by the program expansion deadline of January 19, Washington High School will add one program for 2006-2007 in the health career field.

Students in the Massillon Tech Prep programs have gone on to continuing education at rates higher than the state averages, but while the state averages are consistently increasing, Massillon's is moving up and down.

Table 9-13: Career Technical Performance Profile Continuing Education Enrollment

	2001-2002	2002-2003	2003-2004	2004-2005	2005-2006
Alliance	42.6%	49.0%	47.7%	53.2%	47.6%
Canton City	19.5%	29.5%	27.0%	45.7%	47.3%
Canton Local	38.5%	47.7%	38.3%	50.9%	48.9%
Massillon	46.6%	61.7%	53.0%	43.9%	59.9%
Northwest	54.2%	50.7%	45.5%	61.2%	62.8%
Plain Local	65.9%	67.9%	71.4%	72.0%	69.8%
Stark County	32.9%	39.9%	36.2%	45.1%	40.6%
State	44.2%	46.9%	49.1%	51.0%	52.4%

Recommendations: The number of tech prep programs needs to increase in Massillon and the number of students enrolled in these programs and then going on to college needs to increase. A specific plan for the increase needs to be created and targets should be set. It is recommended that by the end of the 2007-2008 school year, Massillon will have added 3 new programs to the 4 now in existence. The number of students going on to continuing education should increase to that of the highest participation district in Stark County—Plain.

Academic Lab

Data Analysis: During this school year an academic lab was created at Washington High School. Credit recovery is now being offered in this lab using Nova Net and two academic tutors. Students are charged for credit recovery at the rate of $175 per course. An online ACT prep section is also envisioned for the lab and with a grant from the Stark Education Partnership, this will become a reality.

Recommendations: AP test prep practice should be added to this lab. Move students from study halls to this center on a rotational basis (begin year with Grade 12, then Grade 11 and finally grade 10). Use supervision from the study halls to augment the lab tutors. When the space is full, move on to use computer labs in periods they are not used for instruction and/or put technology in all large group spaces that now contain study halls.

Guidance Office

Data Analysis: Online college searches are envisioned as soon as six new computers are added. At that time only the up to date and valuable paper catalogues will be kept.

The guidance office published two excellent booklets this year: "Washington High School Financial Aid Booklet," and "Washington High School Applying to College and Financial Aid Information."

Recommendations: The college application center should be open to seniors in the fall of their senior year and to juniors in the spring of their junior year. The room should be decorated by the students and staffed by study hall staff as they rotate their students into this center.

It would be very helpful to the students if the guidance office booklets were reproduced on CD and if hotlinks to scholarship applications and the FAFSA forms were included. The Stark Educational Service Center has the hotlinks to the scholarships as well as a cd burner purchased for them by the Stark Education Partnership. Therefore, burning the cds would be a very inexpensive upgrade and the students could use the CD's in school, at home and in the school and city libraries.

Continuous Improvement Plan

Data Analysis: The Continuous Improvement Plan focuses on academic achievement in the form of improving Ohio Graduation Test Scores (OGT).

Recommendations: Include sections with teacher plans for: increasing AP offerings, increasing AP scores, increasing tech prep offerings, and changing school climate to more active student engagement.

Observation: After visiting on December 9, 2006, the author observed that students are not engaged or exhibiting enthusiasm about learning. Some were sleeping in class and many were sleeping in study halls and at lunch.

Recommendation: Begin to use competitive spirit in Massillon to build student leadership and responsibility for learning and increase expectations for student accomplishments.

The principal together with his administrative and teacher leadership teams can start this competitive notion with some whole school competitive strategies that will also improve student achievement:

1. Stop Channel One once per week and do whole school comprehension exercises. Teachers will select one student from each homeroom to be on principal's team. The principal will distribute a comprehension question from OGT to 9th and 10th grade homerooms and from ACT to 11th and 12th grade homerooms. Student team members will collect the corrected papers and table them to show the homeroom's performance. The principal or his designee will table the data by grade level and will appear on the local news to announce the results. After two months of this, the principal will announce winners (could be highest homerooms at each grade level, highest grade level performance, greatest improvement etc.). Some kind of reward will be given.
2. Meet with AP English class and give them the task of finding out from each department the recommended books for the month and setting up a display in the library.
3. Institute a new "quick and dirty" instructional plan where teachers begin by asking the students in the last 5 minutes of class to state what they learned in that class period. After one month of this, the students will write what they have learned and will designate a recorder to summarize the once per week written statements by the students.
4. In the back of all SAT preparation books are vocabulary cards. The students in the Interactive Media class will select four of these words each week and include those words on a daily newscast. A monthly quiz bowl, patterned after Jeopardy and using the 20 vocabulary words, will videotaped and prizes will be awarded. The principal or a vice principal would be the host of the program. Alternatively, one of the students would be the host of the program.
5. Conduct an essay contest among Juniors and Seniors sponsored by the Superintendent of Schools and the Board of Education. The suggested topic is:

"The Future World of Work in the 21st Century." A $1000 college scholarship, funded by one of the area businesses, will be awarded to the winner. Readers for the essay would come from the business world or from one of the service clubs existing in Massillon.

6. Other ideas suggested by students, parents, local business people and teachers.

Observation: Teachers are not proposing new courses or changes in courses that would get to the skills that students need in the 21st century workplace or in the college environments they will experience. Further, there is no evidence that planning is happening to implement the Ohio Core.

Recommendation: The following immediate suggestions might be implemented to change the academic climate:

1. Ask all departments to pose problems of the week to be written on the whiteboards in each department classroom and solved by students. Winners for the week will be announced and recognized on the student television program. Award some small prize. Manpower and funding for this activity might come from a parent academic booster club.
2. Show video clips from the Dream It Do campaign on the NAM website and show one course from the MIT website at a faculty meeting. Ask each department to have each teacher create one lesson plan that would be project based or work related based on those websites. At the next faculty meeting ask each department to discuss the results of their lesson plans.
3. Administer the Explore Test to all 8th grade students. In all of the Stark County school districts where this was done two years ago the result was the same. Students were identified who had never been noticed before as star performers. For example, Canton City found 90 students with scores in the 95th national percentile in at least one subject area, whom they had never known to have this kind of potential. Review scheduling of students based upon their Explore Test data.
4. Eliminate general courses for the 2006-2007 school year.
5. Decrease the number of separate special education classes for the 2006-2007 school year. Deploy special education staff as support to the core classroom teachers.
6. Principal will meet with all AP classes in a general assembly and will discuss with the potential pitfalls of not taking or doing well on AP exams. Some colleges are withdrawing college acceptances if students do not complete AP courses and examinations. Students who do not score at least a 3 on the AP examination will not receive college credit from the colleges where they enroll (all Ohio colleges, except Case Western, award credit). Open a computer lab to these students to do practice AP tests using the discs that the AP teachers have.

Summary of Findings

A thorough analysis of the current literature on high schools, Washington High School data and observation data as well as recommendations made as the parts of the data were analyzed lead to the following summary recommendations:

1. Expectations: Change the expectation that high school graduation is sufficient to an expectation that all students will go on to some form of continued education. Increase high school to college going rate significantly.
2. Curriculum: Eliminate general track classes, increase Advanced Placement course offerings and test taking with higher scores, increase tech prep offerings and increase dual credit opportunities.
3. Technology: Increase availability of technology to students.
4. Instruction: Change to engaged learners from a “stand and deliver” model.
5. Professional Development: Focus on strategies for achieving all of the recommended changes.
6. Results: Increase high school graduation rate to 100%; increase ACT scores; increase AP scores; increase dual credit participation.

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Appendix I: Massillon Executive Committee Meeting Agenda
Adrienne O'Neill, Ed.D. – November 14, 2006

Towards 2025: An Analysis of Curriculum and Instruction in the Massillon City Schools

The Context, A Review of the Literature

1. **Business Thinking**: Six Sigma (strives for perfection—no more than 3.4 defects per million opportunities), Lean Manufacturing (looks at ways to lower costs in manufacturing processes and keep Six Sigma characteristics), Best in Class with "Big, Hairy Audacious goals (BHAGS)—Jim Collins, *Good to Great*, Global Competition as described by Thomas Freidman, *The World is Flat*, Definition of Prosperity by Ohio Business Roundtable: Innovation + Technology (Education) = Prosperity; Value of Strategic Partnerships
2. **Education Thinking**: Rigor, Relevance and Relationships; Elimination of Achievement Gaps; Convergence of College Ready and Workplace Skills; Distance Learning; Branding; P-16 research and findings; Theory of Action (see attached);
3. **Status of Education in Ohio**, including the Ohio Core; and Public Opinion polls (KnowledgeWorks Poll 2006, Voices and Choices conclusions (Issues, Nov 3, 2006)
4. **Status of Education in the United States** (See *Changing a Culture*)

Components of the Analysis:

1. Is the **customer** clear? If so, who is the customer?
2. Do **SMART Goals** (specific, measurable, attainable, relevant and time bound) linked to vision and mission and data driven exist? If so, what are they?
3. What do the **Data** say?
   A. Analysis of Massillon School District Data ("inside variables")
      a. P-5, 6-8, 9-12, (drop-out, mobility, achievement, poverty etc.)
      b. Numbers of students going on to college
      c. Remediation rates of students going on to college
      d. AP results, ACT/SAT results, special education results, tech-prep results
      e. Dual Credit?
      f. Achievement Gaps?
      g. Comparisons with other similar school districts on a-f above

   B. Analysis of Massillon Curriculum and Instruction from the point of view of **"outside context variables"** included in literature review:

4. **Description of current programs and previous 5 year milestones leading to increased student achievement** (Examples: change of textbook, Project Ahead, professional development, Smart Boards, changes in time devoted to subject areas, course eliminations, program eliminations, etc.)

   A. P-5, 6-8, 9-12 with Ohio Standards
   B. 8-12 with ACT Standards of Excellence
   C. Benchmarks set after review of Best Practice? (Examples: kid power, technology upgrades, change in belief system, quarterly reports; coaches; change in communications strategy/strategies; change in professional development strategy/strategies; special education; block scheduling; increase in AP courses and/or dual credit; using power of Superintendent to institutionalize change; all HS students apply to college; moving beyond Ohio standards—using MIT open courseware site in HS classes; group reads—Friedman and/or Collins; literacy, numeracy plans at K-15, 6-8 and 9-12; Algebra for All in 8th grade; ACT etc.)
   D. Amounts of **resources** devoted to current programs.

5. **Recommendations**

   A. Suggested Operational projects with key performance indicators, for change in curriculum and instruction P-5, 6-8 and 9-12 with changes in resource allocations and professional development tied together.
   B. Suggested Dashboard of Indicators of success
   C. Suggested Communications Plan

Appendix II: Selected Policies from Massillon Board of Education Policy Manual (http://www.neola.com/massillon-OH/)

2105 - Mission Statement: The mission of the Massillon City School District Board of Education is to empower teachers so that students can learn what they need to know.

Empowered teachers require a stimulating learning environment, proper training, effective administrative assistance, skilled support staff, and adequate funding.

Students need to know how to become involved, useful, and satisfied citizens in a global community capable of lifelong learning and productive employment.

Adopted 8/17/98

2110 - Statement Of Philosophy: We believe the purpose of the District's education program is to recognize each child as a unique individual, coming to us with varying aspirations, abilities, interests, and needs. We respect the rights, privileges, and differences of each child and try to provide the finest possible education for each of them.

We attempt to provide our children with opportunities to develop socially, intellectually, emotionally, and physically in addition to developing all of the basic learning skills. In a stimulating environment, we encourage critical thinking and appreciation for the exchange of ideas.

We believe that the school, working cooperatively and continuously with the home and community, is entrusted with the responsibility for the growth of every child. Together they must work to develop in each child a personal feeling of well-being and self-worth if each is to evolve into a well-adjusted, contributing member of society.

A.C. 3301-35-01, 3301-35-02(A)
Revised 11/25/91

2114 - Meeting State Performance Indicators: It is the intent of the Board of Education that the District annually meet the specified number of performance indicators established by the State Board of Education to be designated as an "Excellent" School District.

The Superintendent shall develop a plan annually that outlines the steps the District needs to take if at least the required percentage of students is to meet or exceed the performance levels established by the State Board of Education for each of the performance indicators.

S/He shall also estimate the additional resources that will or may be necessary to be able to implement the annual plan and the annual cost to the District to provide such resources. These estimated costs shall then be incorporated into the budget proposals submitted to the Board each year and identified as such.

Maintaining a designation as an "Excellent" School District will require both the understanding and support of parents and the community at large. Thus it will be the responsibility of the Superintendent to establish and maintain a communications program to the community to keep them informed of:

A. the current performance status of the District and the resources that are needed to continue to function as an "Excellent" District;

B. the current performance status of the District and the resources that are needed to continue to function as an "Effective" District;

C. the impact on students and staff if high performance standards are not met.

R.C. 3302.02, 3302.03
Adopted 8/17/98
Revised 2/13/02
Revised 6/25/03

2131 - Educational Outcome Goals: As a base against which to assess school needs and set objectives for the educational program, the Board of Education, following consultation with teaching staff members, students, parents, and other residents of this District, adopts the following educational outcome goals for every student in this District.

A. to acquire basic skills in obtaining information, solving problems, thinking critically, and communicating effectively

B. to acquire a stock of basic information concerning the principles of the physical, biological, and social sciences; the historical record of human achievements and failures; and current social issues

C. to become an effective and responsible contributor to the decision-making processes of the political and other institutions of the community, State, country, and world

D. to acquire the knowledge, skills, and understanding that permit him/her to play a satisfying and responsible role as both producer and consumer

E. to acquire job entry level skills, and also to acquire knowledge necessary for further education

F. to acquire the understanding of and the ability to form responsible relations with a wide range of other people, including but not limited to those with social and cultural characteristics different from his/her own

G. to acquire the capacities for playing satisfying and responsible roles in family life

H. to acquire the knowledge, habits, and attitudes that promote personal and public health, both physical and mental

I. to acquire the ability and the desire to express himself/herself creatively in one (1) or more of the arts, and to appreciate the aesthetic expressions of other people

J. to acquire an understanding of ethical principles and values and the ability to apply them to his/her own life

K. to develop an understanding of his/her own worth, abilities, potentialities, and limitations

L. to learn to enjoy the process of learning and to acquire the skills necessary for a lifetime of continuous learning and adaptation to change

A.C. 3301-35-02

2132 - Educational Process Goals: In order to achieve the educational goals for students the Board of Education will establish policies which will authorize and encourage:

A. instruction which bears a meaningful relationship to the present and future needs and/or interests of students;

B. significant opportunities, consistent with the age of the student, for helping to determine the nature of the educational experiences of the student;

C. specialized and individualized kinds of educational experiences to meet the needs of each student;

D. opportunities for teaching staff members and students to make recommendations concerning the operation of the schools;

E. comprehensive guidance facilities and services for each student;

F. an environment in which any competition among students is positive;

G. resources for education, used with maximum efficiency;

H. teaching staff members of high quality;

I. diverse forms of constructive cooperation with parents and community groups.

A.C. 3301-35-02

2210 - Curriculum Development: The Board of Education recognizes its responsibility for the quality of the educational program of the schools. To this end, the curriculum shall be developed, evaluated, and adapted on a continuing basis and in accordance with a plan for curriculum growth established by the Superintendent.

For purposes of this policy, curriculum shall be defined as the courses of study, subjects, classes, and organized group of activities provided by the school.

The Board shall be responsible for the curriculum of the schools.

The Board reserves the right to preview all curriculum and to direct a continuing program of curriculum review and modification. The Board directs that the curriculum of this district will:

A. provide instruction in courses required by statute and State Department of Education regulations;

B. be consistent with the District and school statement of philosophy and goals and result in their achievement;

C. provide for continuous learning through effective articulation at all levels of this District;

D. provide all students access to a variety of learning resources to support the educational program;

E. provide for the use of phonics in the teaching of reading in grades

K - 3

F. provide all students access to learning experiences through a variety of learning modality channels;

G. provide necessary educational programs and services for all disabled students;

H. provide compensatory education programs for students pursuant to law and regulation;

I. provide career awareness and vocational education pursuant to law and regulations;

J. provide limited educational opportunities for gifted and talented students;

K. provide preschoolers with materials, equipment, and a program curriculum which reflects the integration of a developmentally appropriate sequence of instruction.

As educational leader of the District, the Superintendent shall be responsible to the Board for the development and evaluation of curriculum and preparation of courses of study.

S/He shall establish procedures for curriculum development and evaluation which ensure the effective participation of professional staff members.

The Superintendent may conduct such experimental and research programs as are deemed to be necessary to the continuing growth of the instructional program.

The Board encourages, where it is feasible and in the best interest of the students of the District, participation in State-initiated experimental programs of educational research.

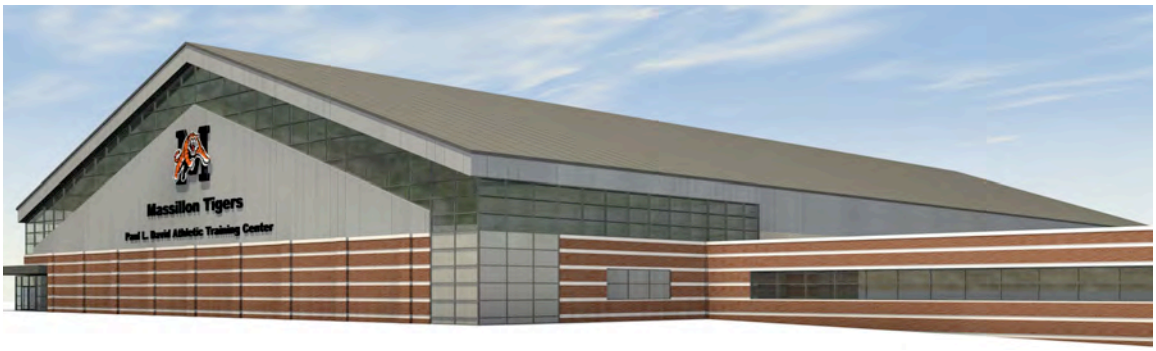
The Board directs the Superintendent to pursue actively State and Federal aid in support of research activities in this District.

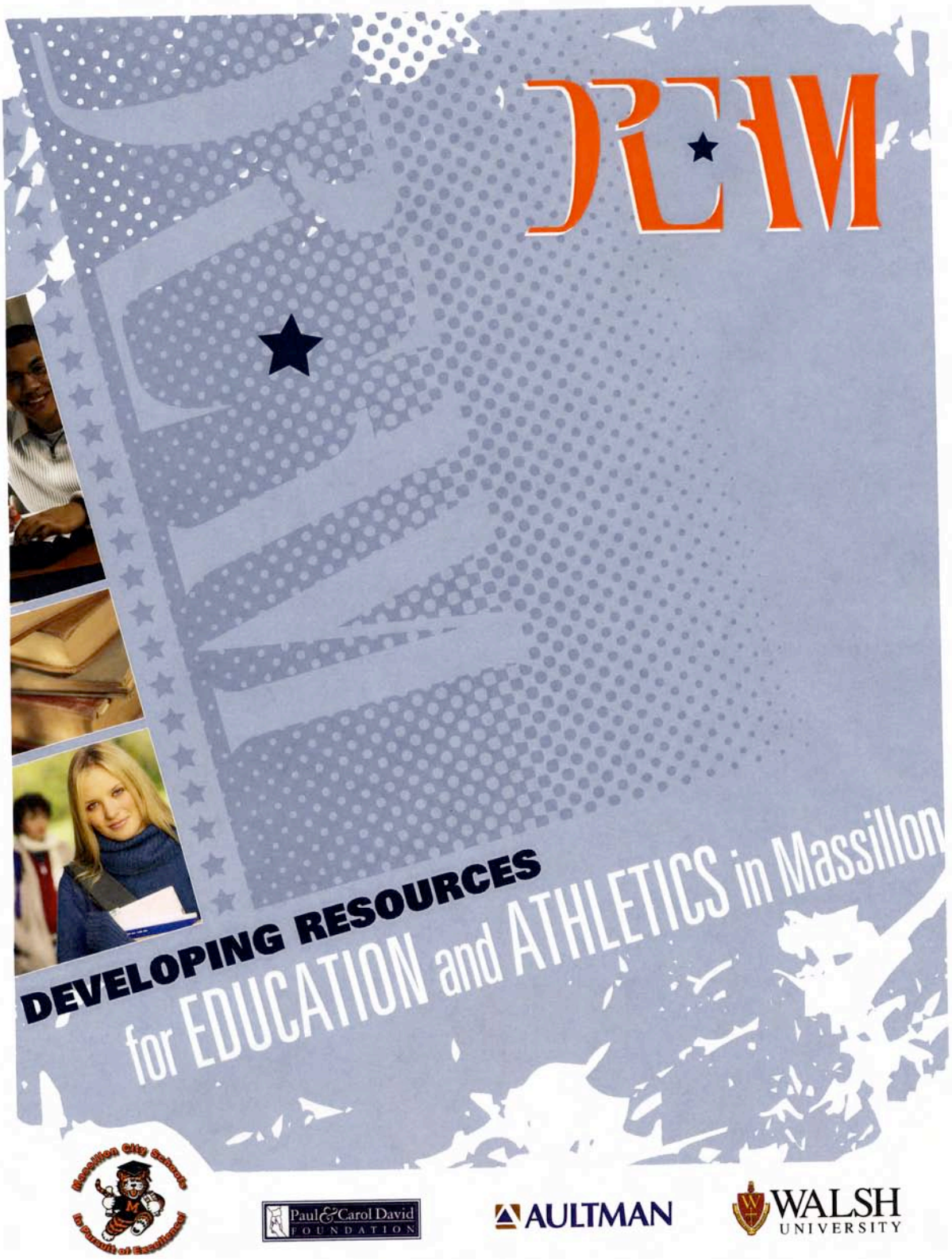
The Superintendent shall make progress reports to the Board annually on all progress in curriculum development.

R.C. 3301.07, 3301.132, 3313.60, 3313.602, 3313.843, 3315.07
R.C. 3317.023, 3317.11, 3319.02
A.C. 3301-99-01, 3301-35-02
Revised 11/25/91
Revised 5/24/93

Appendix III: Developing Resources for Education and Athletics in Massillon (DREAM)

……this project presents opportunities—but are not just limited to the students that will participate in the curriculum offerings. It also presents a tremendous opportunity for collaboration among many local entities and individuals such as our Foundation, Walsh University, Aultman Health Foundation, Massillon City Schools, the Massillon Board of Education, Dr. John McGrath, Schumacker Construction, the City of Massillon, the Honorable Mayor Cicchinelli and many others in order to turn this vision into a reality. – Jeff David, February 2, 2007, D.R.E.A.M. Press Conference




DREAM
DEVELOPING RESOURCES
for EDUCATION and ATHLETICS in Massillon
Paul & Carol David FOUNDATION
AULTMAN
WALSH UNIVERSITY

Jeff David, President, The Paul & Carol David Foundation
REMARKS

On behalf of the Paul and Carol David Foundation, I am very excited to be here today to announce this project! Upon sitting down, reflecting and preparing my comments for today, it was difficult to grasp the true beginning of this project. When my father was still alive, he often talked about how we could help future generations of Massillonians. Over the years, he and my mother felt fortunate and blessed to be able to play a small part in helping the people of Massillon and greater Stark County. Before my father passed, however, I remember him talking about projects that could not only change the face of the Washington High School campus but also change the way people thought about Massillon - projects that may provide new opportunities to future generations of children and maybe, in some small way, provide opportunities for the community, as well. After he passed, I spent countless nights thinking about those comments and searching for the concept that might bring my father's goals closer to a reality. I believe that this project is a step in that direction. I know that my mother shares the same enthusiasm for this initiative as I do. For those of you that know my mother, you already know that she is a champion of children's causes and is often the first to offer help to children in need. I am thankful to call her "Mom" and am proud to play a role in continuing her and my father's legacy of giving back.

It's more than just symbolic that this project embodies all that my father cherished in his life: the Massillon community, children of Massillon, our great school system, that he was so proud of and, of course, athletics. In a word, this project presents OPPORTUNITIES. You see, this project is much more than facilities. Sure, the facilities that are a vital part of this initiative are beautiful and unique for school systems in this part of the country, but they are just buildings - brick and mortar, if you will. The true value and the true potential of this initiative lies in the curriculum offerings, the experiential learning and the career exploration opportunities that will be the foundation of this collaborative effort... for years to come.

As I stated earlier, this project presents opportunities... but are not just limited to the students that will participate in the curriculum offerings. It also presents a tremendous opportunity for collaboration among many local entities and individuals such as: our Foundation, Walsh University, Aultman Health Foundation, Massillon City Schools, the Massillon Board of Education, Dr. John McGrath, Schumacher Construction, the City of Massillon, the Honorable Mayor Cicchinelli and many others in order to turn this vision into a reality. In fact it is 100% certain that we would not have been able to pull this off without the efforts of those involved! There are countless entities within the greater Stark County area with which to partner, in order to reach a common goal more efficiently and effectively. We hope that the collaboration necessary for this project serves as a stepping stone for many others to follow. I know that Fred is currently working with Adrienne O'Neill and the Stark Education Partnership on a full curriculum audit. This, too, is wonderful news for the students of Massillon and further represents the benefits of leveraging ALL available resources in order to enhance the educational experience.

Now, I know that there have been rumblings for some time regarding the facilities that might be built on behalf of our Foundation. I have also heard some wildly varying rumors regarding the scope, cost and placement of the new facilities. I have to admit that the rumors have been very entertaining; but as is usually the case, they only capture a fraction of the facts. In order to provide clarity, the Paul and Carol David Foundation is building an 80,000 square foot indoor athletic training facility to be called the Paul L. David Athletic Training Center. The center will be made available to all students in the Massillon school system. In addition, we will build a 14,000 square foot state of the art locker room attached to Paul Brown Tiger Stadium and to be named the Alumni Locker Room - to honor those that have come before us. The locker room will include an enhanced training room and classrooms to facilitate the sports medicine program. Lastly, the long awaited and richly deserved Paul Brown museum will eventually be annexed to the indoor athletic training facility. Although our Foundation is not funding the construction of the museum, we are proud to have the Paul Brown museum as part of this overall project. It is fitting, given the very close relationship that my father had with Coach Brown, that the 'two Pauls' will be honored in adjoining buildings. We plan on breaking ground on the indoor training facility and locker room in the Spring of this year, while the museum, as we understand, will be constructed sometime in the summer of 2008.

Again, constructing brick and mortar is relatively easy. In fact, in the early years of our Foundation, outside of our scholarship program, my father would only participate in capital campaigns -the bricks and mortar. He used to joke that the grant follow-up' of such projects simply consisted of driving by and verifying that there was, in fact, a building there! However, to have the lasting impact on future generations, this project HAD to be more than bricks and mortar. That is why it has taken so long to identify, engage and refine the key components of this project. Hopefully, you'll agree that it's been worth the wait!

Our Foundation has a long history of giving in the county and specifically in Massillon. Our David Scholar program is the largest four-year scholarship program in the county and currently has nearly 200 active scholars from Stark County in some form of post secondary education. We have long been supporters of the Massillon school system and have funded numerous technological upgrades and programs in the school system. Of course, due to the close relationship that my father had with the late coach Brown, we have long been fond of the athletic programs here at the school and are proud of what they have meant to the school and the community. As we say around these parts .... T-I-G!

I will not get into the specifics of some of the curriculum offerings, I will leave that to those more qualified than me. However. I will say that in determining what curriculum offerings to present, we took into consideration many factors. Among those were the school's tradition and storied history, what capabilities and potential partners were in the marketplace, the strengths of the school system and its administration, and what might best engage students to continue their learning past high school and into fields that are in demand. From all of these factors, we as a group, decided on the sports medicine field as the preferred curriculum offering. In addition, Walsh University will

be bringing a very innovative program to our high school that we think will greatly increase the number of our graduates that go on to college. This, of course, naturally dovetails into the cornerstone of our Foundation... the David Scholar Program.

I'd like to take a few moments now to recognize and thank a few of the many people that were a part of this effort.

Mr. Fred Blosser the Superintendent of Massillon City Schools. My father was a strong believer in leadership and the positive impact that great leadership can have on an organization and its people. From the first lunch meeting that I had with Fred, it was obvious to me that we shared similar beliefs and had the same passion for children. He is a true leader that is committed to kids and brings a forward thinking approach to our school system. We are blessed to have a man of his experience and integrity. He has and will continue to bring a high level of professionalism to the school system, which will only serve to benefit the kids that are learning within it. Thank you, Fred, for embracing and signing on to help execute this shared vision.

I would like to thank Mr. Gary Miller, the past President of the Massillon Board of Education. We came to Gary and the Board with our idea several months ago, and they embraced it and were enthusiastic about the impact it could have. From that point, Gary has played a vital role in providing guidance and sharing his expertise in making the project even more meaningful. It's truly been an honor to work with Gary, and I value his opinions immensely. He is a great asset to the Board, and I hope he chooses to remain on the Board for a very long time. Thank you, Gary, for your vision and leadership. I'd also like to thank the rest of the Board Members: Ron Pribich, Evan Hannon, Larry Daniels, Teresa Emmerling and Vicki Becherucci for your continued commitment to the children of Massillon.

I would also like to thank Dr. John McGrath. Many of you may know John from his days as President of Stark State College. Some of you may know John as a member of the Ohio Fuel Cell Coalition and from his work to help secure Rolls Royce's North American Fuel Cell operations right here in Stark County. Still others may know John as the Executive Director of the Health Foundation of Greater Massillon, an active member of our community. I've come to know John as a visionary, superbly organized, roll-up-your-sleeves and get things done kind of guy. I've also come to know him as a friend and a great asset to the Massillon community. Thank you, John, for your steadfast belief in this project and your help in making it a reality.

I'd like to thank Walsh University and its President, Mr. Richard Jusseaume. Walsh University has strong ties to our Foundation and, in fact, was the only Board my father ever agreed to serve on. I have also served on a committee with Rich and found him to be one of the most dynamic and progressive thinkers that I have had the pleasure of working with. You only need to drive by the Walsh campus, peek at its enrollment figures and talk to the students, professors and administrators to realize the impact that Rich has had in establishing Walsh University as one of the crown jewels of higher education in the region. Thank you. Rich, for your leadership and your long standing friendship.

I would like to thank Aultman Health Foundation and its President, Mr. Ed Roth, and his fine team of professionals who assisted in developing the curriculum offerings of this project. When we were discussing the potential curriculum of the sports medicine program, it became clear that to provide students with a window to career paths they could pursue, we needed a partner that could offer this hands-on, practical experience. Aultman Health Foundation, with its numerous satellite locations, was willing to do that as part of their ongoing commitment to western Stark County. In addition, their long standing history of working with Walsh University provided a comfort level to the group. Thank you Ed, Vicky, Jim, Chris and Liz for your innovative thinking and collaboration.

Lastly, I would like to thank Mr. Leroy Schumacher and sons, Kim and Todd, of Schumacher Construction. As many of you know, the Schumachers have a long lineage with Washington High School and the Massillon community. During the many meetings and trips that we had together, we shared many stories of our days at Washington High School. I know for a fact that the school and community hold a very special place in the hearts of these fine gentlemen. I can also say with confidence that we would not be where we are today without the dedication and hard work of Kim Schumacher. He has done much of the 'heavy lifting' as it relates to the construction aspects of this project, and we look forward to working with him and his company on making the facilities something we can all be proud of. Thank you, Kim, for your efforts and your commitment to the Massillon community.

In closing, I would like to reiterate my excitement for this project and what it could mean to the Massillon community and especially to the students in the Massillon School system. The kids are what this project is all about. When my parents created our Foundation it was children that they chose to serve. It is our sole focus, and I know that my father would be proud of what we are doing together for future generations of Massillonians. Thank you for sharing this special day with us!

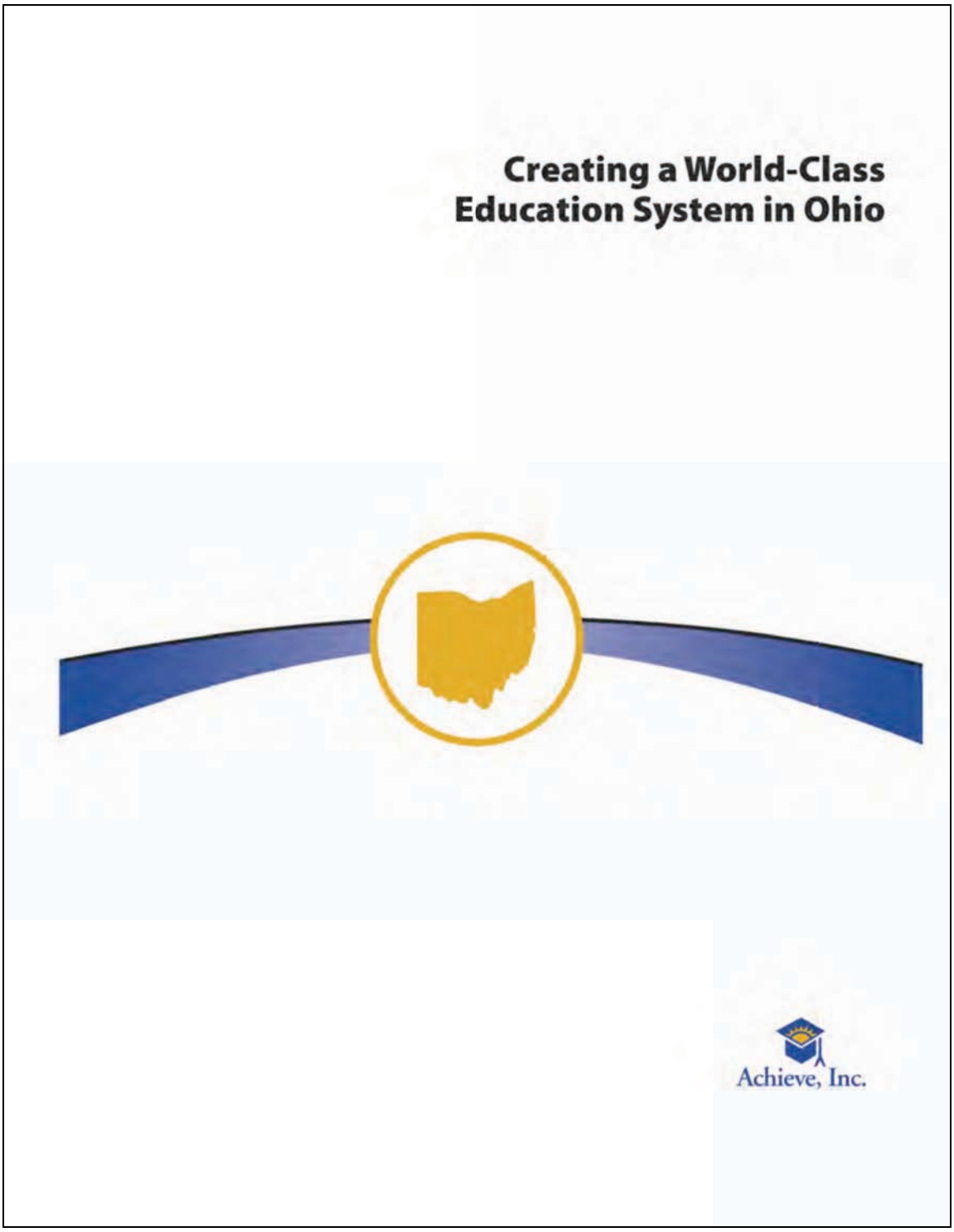
Appendix IV: Data Book Outline

From the 2005-2006 District Data Committee Portfolio:

Transportation/Safety
- Bus Discipline—Behavior Reports/Referrals
- Program Discipline—Out-of-School Suspension/In-School Suspension/Alternate School

From the 2025 Study:

Appendix V: Creating a World-Class Education System in Ohio



Executive Summary: Creating A World-Class Education System in Ohio

In a global economy where employers can choose workers from across the world, it is increasingly clear that Ohio's future economic competitiveness depends on the ability of its education system to produce students who can compete globally. This mandate is made even stronger by Ohio's historical reliance on the manufacturing sector, which has consistently eroded in recent decades. Given these realities, it is likely that making Ohio's educational system world-class is the one action that would most improve Ohioans' future standard-of-living. A world-class education system would raise the skills of all young people entering Ohio's workforce and provide a foundation to help ensure the success of more targeted efforts, such as the current STEM initiative which aims to increase the number of science, technology, engineering and mathematics graduates.

Ohio has enacted several important education policy advances over the last decade, with a focus on standards and accountability but also covering a broad range of issues including school choice, which together have moved Ohio's K-12 system forward in several important ways. Ohio Senate Bill 1 (2001) established the State's first academic content standards and called for new assessments to match the standards. Senate Bill 55 (1997) created an accountability system for districts, and Senate Bill 1 (2001) expanded it to include schools as well, both of which preceded the federal No Child Left Behind (NCLB) law. Ohio thereafter incorporated subgroup performance to its accountability system with House Bill 3 (2003). Senate Bill 2 (2004) made strides for teachers by creating the Educator Standards Board and establishing guidelines for professional development. In the area of school choice, Ohio's actions have made it a national leader. House Bill 215 (1997) established community schools (commonly known as "charter schools"), and House Bill 364 (2003) gave ODE oversight of them; House Bill 66 (2005) created the Educational Choice Scholarship Program (EdChoice) to provide vouchers to students in underperforming public schools to attend private schools.

These reforms have, on the whole, been fruitful: the State has enjoyed significant improvements in student achievement. In almost every grade level and subject area, both average and absolute test scores have risen. Better still, Ohio's traditionally disadvantaged subgroups—Black, Hispanic, and economically disadvantaged students—made gains at rates faster than the average Ohio students. On the whole, Ohio's students also perform well in comparison with other states, with National Assessment of Educational Progress (NAEP) scores in math, reading, and science that are all above the U.S. average for both 4th and 8th grade. In fact, Ohio was recently ranked 10th among U.S. states on Education Week's comprehensive achievement index, which includes overall NAEP performance, Advanced Placement (AP) test scores, and graduation rates.

However, a high ranking within the United States is no longer enough in a globalizing economy, and Ohio continues to fall short when evaluated against a world-class standard. Though a consensus is emerging that college-readiness is the minimum requirement for competitiveness in the 21st century, Ohio does not even keep up with other U.S. states on this important metric. Though Ohio does not participate in comparative international assessments, a look at Ohio's performance relative to the U.S.—and the U.S. performance relative to the world—suggests that Ohio's students still have a large gap to close with the best in the world.

In addition, though Ohio's own aggregate test scores have grown impressively, this growth masks large and persistent achievement gaps for economically disadvantaged, Black, and Hispanic students. Though race and economic status are correlated, each contributes separately and significantly to inequalities in student outcomes. This problem is most clearly reflected in the growing number of schools and districts that have not been meeting Adequate Yearly Progress (AYP) in recent years, and it is particularly acute amongst urban districts, which enroll large concentrations of disadvantaged students and are overrepresented among schools that do not meet AYP. All in all, Ohio's recent trends indicate that progress has been made, but that substantial reform is necessary to build on and complete the work of the last decade.

But what should guide Ohio's reform? This report looks domestically and internationally at systems that consistently achieve high results for answers to that question. The world's highest-performing educational systems exhibit three common attributes, which reinforce each other to ensure system alignment and focus on delivering high levels of student achievement.

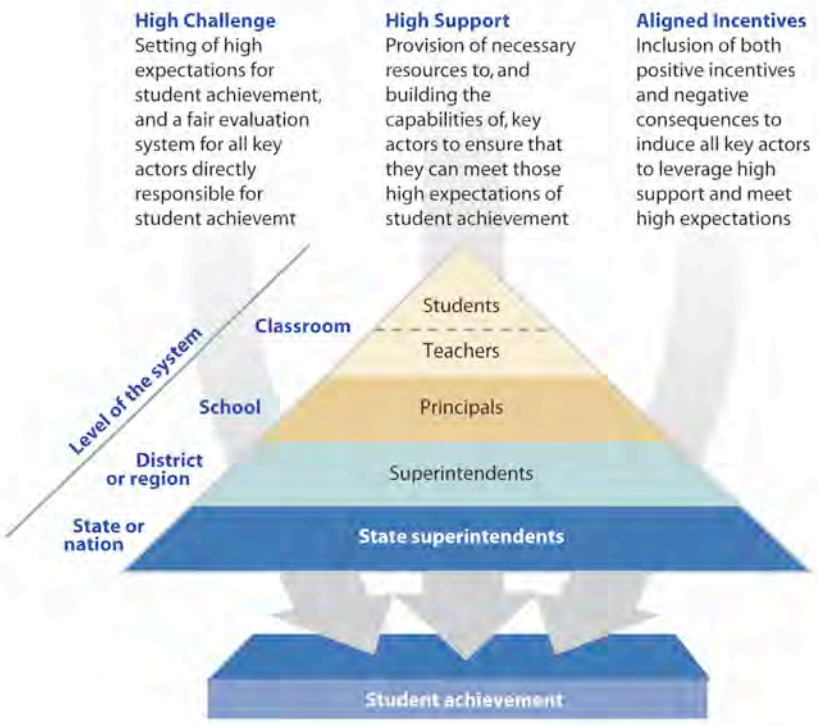
- ***High challenge.*** Sets high expectations for student achievement for those people most responsible for student achievement (students, teachers, principals, and superintendents)

- ***High support.*** Provides the necessary resources to and builds the capabilities of those same people to ensure that they can meet those high expectations of student achievement

- ***Aligned incentives.*** Includes both positive incentives and negative consequences for meeting (or failing to meet) those expectations of student achievement

Simply put, these systems offer an important and balanced deal to students, teachers, principals and superintendents: in exchange for accountability for delivering high levels of student achievement (high challenge and aligned incentives), they provide the resources, opportunities, information, development and targeted help necessary (high support) so these expectations can successfully be met.

EACH OF THREE SYSTEM ATTRIBUTES MUST BE DESIGNED FOR KEY ACTORS MOST RESPONSIBLE FOR STUDENT ACHIEVEMENT AT EACH LEVEL



A detailed benchmarking of Ohio's K-12 system against the characteristics of high-performing systems globally has produced a set of seven key implications for Ohio. Research suggests that if these were acted upon in a holistic, integrated manner, Ohio would achieve its goal of creating a world-class education system.

1. Ensure readiness for college and the global economy by continuing to raise Ohio's standards and improve assessments

Research indicates that the best systems in the world create a high challenge for their children that includes high standards and rigorous, equitable assessments. This will require Ohio to go beyond the strong progress in this area over the last 10 years by aligning K-12 standards with knowledge and skills needed for success in postsecondary education and the global economy and by benchmarking its standards against those of high-performing states and especially nations that compete with the United States.

It will also require steps to increase the rigor and relevance of the high school assessment system. Statewide end-of-course exams in core subjects, which should replace local final exams, are needed to ensure equity and consistency in the content and rigor of instruction. These exams in advanced courses can also help determine whether a student is ready to do college level work or needs additional help before graduating from high school. As more rigorous assessments are phased in, consideration should be given to phasing out the Ohio Graduation Test (OGT).

2. Empower principals to function as instructional leaders

In the best school systems, principals have a clear instructional mandate with performance incentives tied to meeting high student achievement goals. Principals are central to the system's ability to create environments where students can meet the high challenge set out for them. As instructional leaders, principals can coach and develop those who have the greatest impact on student achievement: teachers. However, today Ohio's principals are caught between the need to be excellent building managers and the need to provide instructional leadership. To address this tension, districts should adopt clear expectations that define the principal as an instructional leader and create rigorous evaluations that align to those expectations. Flowing from this, districts should provide principals the time, resources and authority to lead, a transition that the State can support with targeted resources. Finally, districts should offer principals performance incentives that tie to an instructional leadership role.

3. Align clear expectations for teachers with evaluation, professional development, and consequences

The best systems not only set clear teacher expectations but invest in systems that ensure they are trained and rewarded for meeting them. Teachers must be challenged and supported to deliver an excellent lesson every time they enter the classroom. First, their body of professional knowledge should be better leveraged by providing them with opportunities to take on additional responsibilities (e.g., coaching, mentoring, curriculum development) while still remaining in the classroom. This could be done by utilizing a career lattice. To transition to a career lattice, districts should work with unions to adopt clear expectations—based on the components of effective teaching—for each role within the lattice.

To ensure that teachers know how they are performing relative to those expectations, a rigorous evaluation process must also be developed, along with performance-based incentives that celebrate teachers' increasing accomplishments and ensuring fair but rigorous action where there is consistent underperformance. To support teachers' work, the Ohio Department of Education (ODE) should collect, develop and disseminate tools (e.g., short-cycle assessments, curriculum, sample lessons) that will help teachers diagnose student needs and improve student achievement. Finally, districts—with support from the State and key stakeholders—should move towards a professional learning approach that is job-embedded, ongoing, data-driven, and built into the school's weekly schedule.

4. Motivate and holistically support students to meet high expectations by addressing their unique needs

Research shows that students receiving targeted support and encouragement perform better. All students, but especially those who face particular challenges—academic or non-academic—deserve to be educated in a system characterized by high-challenge, high-support, and aligned incentives. If these needs are not addressed, it significantly reduces that student's likelihood of succeeding in school and in life. Ohio law requires districts to provide academic intervention services to students who score below the proficient level or who fail to perform at their grade level based on the results of a diagnostic assessment.

In addition to those measures, Ohio should develop comprehensive guidelines for diagnosing academic and non-academic needs. Second, Ohio should ensure that all students have their identified needs met. The best way to ensure that all students' needs are met is to actively pursue collaborative solutions with community members, other government agencies and non-profit organizations. In addition a statewide campaign should be mounted to raise the aspirations of students and communities in relation to education. Finally, Ohio should explore ways to introduce additional positive incentives for students such as providing college scholarships for lower-income students who take a college-ready course load and demonstrate strong performance on standardized tests.

5. Ensure that funding is fairly allocated and linked to accountability

Financial support for principals, teachers, and students is the bedrock of the system, but it is well established that Ohio's school funding system is broken. Based on reviews of other systems, a step-by-step approach, with each step dependent on the preceding one, would best create a basis for broader reforms. In order to make all other reforms possible, Ohio should increase the transparency of school fiscal data, and hold schools accountable for improving efficiency. This assures taxpayers that their tax dollars are being spent well, and helps policymakers to better understand the true costs of a high-quality education. With fiscal accountability established, Ohio should implement a weighted student funding program to ensure that dollars follow students to their schools. This, along with the devolution of budget authority, will give principals the support that they need to deliver results.

Ohio should simplify and redesign its funding formula to account for the true costs of efficiently educating each student to the level of the new standards. Ohio should then reform its tax system to deliver the funding for the redesigned formula to each school on a predictable and stable basis. This would reduce the number of local levies that districts must ask for each year and to reduce inequalities in district revenue. This would inevitably involve a stronger role for the State. Finally, Ohio should establish a process to periodically update and revise its formula.

6. Increase effectiveness of school and district ratings and interventions

Once excellent support is established both professionally and financially, the system should have an accurate way of identifying and intervening in schools that are underperforming. Ohio has been among the most forward-looking states in terms of rating schools and districts based on student performance. The state established a ratings and accountability system in 1997, before No Child Left Behind (NCLB) was enacted at the federal level. To take this system to the next level, Ohio should better align its ratings and consequences to focus upon schools and districts most in need of support.

First, the State should use its full range of student performance measures in addition to AYP to determine the right set of consequences for underperforming institutions. Second, Ohio should more fully develop the capacity to diagnose school performance. Today, this function is the responsibility of individual districts, whose efforts are not coordinated. Third, Ohio should build its ability to intervene in struggling institutions and districts. Today districts intervene in schools according to their own discretion, and there is little visibility into the quality of these efforts. The plethora of regional service providers does not seem to offer the necessary interventional support to districts nor to be wholly accountable to either their customers or the State for the interventions they make.

7. Provide all students with access to high-quality, publicly-funded school options

These international best practices envision a single system that consistently sets a high challenge and provides a high level of support for leaders at every level, from district to classroom. The current reality in Ohio, however, is actually a patchwork of multiple systems—including traditional, community, and EdChoice schools—that are inconsistently regulated and operate in a market with imperfect information. Students are exposed to "market risk" from bad schools because no attempt is made to shut down poor providers or to limit entry of the school market based on performance. At the same time, the promise of choice is limited by regulations that keep community schools from competing on a level playing field with their traditional counterparts.

In school systems that meet best practices, students are empowered to attend any school and are given the information that they need to choose wisely. Second, there is a common framework for the school system. For this reason, Ohio should bring community and EdChoice schools into a common accountability framework with traditional schools. This would limit market risk by ensuring that all schools are thoroughly evaluated and that poor performers exited the market as soon as possible. Third, Ohio should evaluate new school providers and only allow those with proven or high potential academic performance to open schools. Finally, with these accountability safeguards in place, Ohio should make it easier for parents to choose from the range of school options by increasing resources available, easing (and eventually eliminating) numerical and geographic limitations on new schools, and actively seeking innovative school providers from around the world to open new schools and turn around existing ones.

OHIO'S FUTURE EDUCATIONAL SYSTEM WOULD REFLECT WORLD-CLASS PRACTICES AT EVERY LEVEL

	From	To
State	• Sets content standards • Assigns ratings to districts and schools • Works with districts to hold schools accountable, but leaves final decision-making up to them • Issues broad standards for the teaching profession • Lacks sufficient capacity to meet the need for quality technical assistance to individual schools and districts • Oversees a funding system that is opaque and inequitable • Provides little accountability for community schools or private schools that enroll state-funded EdChoice students	• Creates a culture of high expectations for all • Sets world-class content standards • Diagnoses the key drivers of school success and failure and mandates school interventions accordingly • Articulates a framework for the teaching profession that is clear, compelling, and performance-based • Establishes and oversees a system-wide capability for identifying and diagnosing student needs • Provides high quality technical assistance to schools and districts based on statewide best practices • Provides sufficient, transparent, and stable funding and holds schools accountable for using resources well • Serves these functions for all publicly funded schools
Regional providers	• Are loosely aligned with statewide goals; ESCs receive state funding and are governed by locally elected boards • Are of uneven quality	• Are directly accountable to their customers (schools) and compete to provide support services* to those customers • Are aligned with statewide goals for schools
Districts/ sponsors	• Districts actively manage schools: – Hire and allocate school personnel – Allocate funding to schools – Hold ultimate responsibility for intervening in schools – Provide a range of support services – Have autonomy, but little support or accountability, in providing student supports • Fragmented sponsor system has little accountability to state standards; sponsors support and hold community schools accountable inconsistently	• Districts provide strategic management and support: – Manage schools by aligning school principals around a strategy for delivering against state standards – Carry out mandated interventions in schools – Devolve funding, staffing, and management to schools – Provide services* to schools that purchase them – Manage a portfolio of schools and secure quality for students • Sponsors play a similar role vis-à-vis their community schools, holding them strictly accountable for performance
Schools	• Operations directed by districts • Building managed by principal • Follow district guidelines and instructions to deliver education services to students • Community schools and EdChoice schools operate within different systems and have autonomy without accountability • Teachers have uniform roles and compensation based on years of service	• Organized around instructional leadership of principals and teachers • Receive funding based on a weighted student formula • Are accountable for delivery against state standards: – Student performance – Implementation of teacher career lattice in cooperation with unions – Provision of student supports based on systemic diagnosis – Efficient resource management • Have the authority and flexibility to manage resources and staff to meet the challenge of accountability • Teachers have a variety of roles and compensation related to the contribution they make

* "Services" include professional development, student supports, and basic procurement within the frameworks laid out by the state