

A 21st Century Skills Model

White Paper

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Abstract

Akron Public Schools has one focus — all students will succeed. For generations, the traditional education model has been centered on the student in a classroom mastering academic and testing skills. These fundamentals were sound for students who found jobs in the rubber factory right out of high school.

These jobs are gone, the world has changed and education must keep pace. Research shows that the traditional methods of instruction are no longer adequate to prepare students for the 21st century work force and for success as global citizens in a network economy. This white paper explores an alternative to teaching and learning in the classroom. Imagine the benefits of expanding the classroom into the world of work—a community concept that promotes teaching and learning in the real world and gives businesses opportunities to build tomorrow’s work force ready for the jobs of the future.

“The current and future health of America’s 21st Century Economy depends directly on how broadly and deeply Americans reach a new level of literacy —‘21st Century Literacy’— that includes strong academic skills, thinking, reasoning, teamwork skills, and proficiency in using technology.”
— 21st Century Workforce Commission National Alliance of Business

Challenging Traditional Education

Shaping education to meet the challenges of a changing world requires addressing some fundamental questions:

1. How do we ensure student academic success?
2. What role can local businesses play in developing, hiring and retaining the future work force to meet their strategic needs?
3. How can more students be readied for post-secondary education?
4. What learning curricula, activities and experiences foster 21st century learning?
5. What assessments for learning foster student learning, engagement and self-direction?
6. What physical learning environments (classroom, school and real world) foster 21st century student learning in a collaborative learning environment supported by a learning community?

A Career Immersion Model

The answers to these questions may lie in an educational concept of career immersion. By creating a community partnership among Akron Public Schools, The University of Akron and local businesses, teaching and learning in the classroom could be transformed into teaching and the application of skills in the workplace.

The Student: We already know optimal learning differs for every student. Some students excel in the traditional classroom while others need hands-on activities to keep them interested in learning. The immersion school would be amenable to both types of learning.

Obviously, it would be necessary to create a set of criteria for selecting students for this program. For example, a student may have to show proof of mastering academic knowledge by passing the tenth-grade Ohio Graduation Test, which is required for graduation in Ohio. Students who wish to participate in the immersion program would have an additional incentive to prepare for and pass the OGT.

Further qualifications could be established by APS and its business partner. A student may have to demonstrate the maturity to handle independent study, show good attendance records and be able to meet the behavior requirements of an employee.

Community Partnerships: The immersion school program cannot succeed without the complete participation and partnership of local organizations, businesses and at least one university. These entities would share responsibility, and possible funding, to assure that students receive the education and experience they need to enter the work force.

Career Immersion Academy: The immersion program begins with middle school students who have exposure to various career fields. During the first two years of high school, students concentrate on completing state-mandated requirements as well as taking courses relevant to their career interests. Students in grades 11 and 12 leave the typical high school campus and report to “school” at local hospitals, government agencies, businesses, law firms, hotels, restaurants, etc. Students would be taught by traveling teachers and engage in learning activities at this site. The immersion program takes the successful career education model one step further. The immersion of students into a career field maximizes the opportunity for students to understand the functions and skill set required by the partnering institution.

An illustration of a health career immersion academy follows.

ILLUSTRATION:

Health Career Immersion Academy

Recent media accounts report that a lack of state funding, trained instructors and space for clinical training prohibit some interested students from pursuing degrees that would lead to careers as nurses, hygienists, technicians and other health care professionals.

The American Association of Colleges of Nursing estimates that 30,000 qualified students last year were denied admissions into health care programs because professional schools across the country lacked capacity.

A shortage of registered nurses in the U.S. could reach as high as 500,000 by 2025 according to a report released in March 2008 by the Vanderbilt University School of Nursing, Dartmouth University and the Congressional Budget Office. The report found that the demand for RNs is expected to grow by 2% to 3% each year.

PricewaterhouseCoopers' Health Research Institute projects that over the next decade the shortage of physicians in the U.S. will be about 24,000 and the shortage of nurses will be nearly one million. The problem is not just a matter of "baby boomer" doctors and nurses retiring; it is also an issue of not enough graduates to fill the positions.

A health career immersion school model could resolve one of the most urgent employment needs for our area by giving young people the chance to experience the rewards of working in the health industry. Summa Health, Akron General and Akron Children's Hospital all lie within the Akron Biomedical Corridor and are located within a few miles of each other. Akron Public Schools owns the Central-Hower building located on The University of Akron campus and in close proximity to all three hospitals. The Central-Hower facility could be converted into a health careers magnet and function as home base for an immersion school program.

SCOPE:

Health Career Immersion Academy

Middle School Component: The immersion school model begins long before a student's junior year of high school. Students in grades six through eight would have opportunities to explore a variety of career fields. Local professionals could visit classrooms, and students could travel to actual work settings throughout Akron. Counselors at middle schools would advise students and their parents about high school coursework that would be necessary to pursue career fields of interest. After-school programming would be aligned to district/state academic standards and designed to engage students in exciting activities in a career field. The University of Akron robotics program located at Perkins Middle School is an excellent example of this type of program.

Early High School Component: Students in grades nine and ten would attend Central-Hower, which would operate as a traditional high school. Students would take the required academic course to prepare for the Ohio Graduation Test. At the same time, students would explore course work related to a career area of their choice and practice

human relations skills required for effective communication and behavior in a professional environment.

Late High School Component: In grades 11 and 12, groups of 50/100 students in each grade attend school at an area hospital. Academic studies are taught on the hospital campus by traveling teachers. APS and hospital staff collaboratively create field experiences tied to the academic curriculum, and these experiences are incorporated into the course grade. An extended school day may be required.

APS support: Central-Hower continues to be home base, providing teachers, counselors and a principal. A lead teacher is assigned to each group of students. The immersion school option would be available to students in the regular education program as well as to students following the career education curriculum.

Mentor support: Students, or cohorts of five students, are assigned a mentor who follows the student through high school graduation and hopefully continues the mentor-student relationship through college.

Early College: The University of Akron already partners with Akron Public Schools in early college programs. Students enrolled in the career immersion academy will begin to take courses that could earn them college credit as well as prepare for their ACT/SAT exams.

Internship and work option: During the summer prior to the senior year, select students are offered an opportunity for a paid internship at a hospital. The internship is evaluated by the mentor assigned to the student. A year-round school could be explored. Following high school graduation, students who plan to attend college and who pledge to major in the medical field will be eligible for a summer job. Students remain eligible for summer work as long as they continue studies in the medical field of study and meet grade point averages or other requirements determined by the hospital. In addition, the hospital could require that the student pledge to work at that hospital for a defined time period.

University: Students enter college, hopefully enrolling as sophomores after their work in the early college program. At this point, the university takes on the responsibility of expanding the student's exposure to a local business partner.

Outcomes

Our goal would be to move from the traditional education process to one that prepares and transitions students to the world of work. A career immersion model provides students with a first-hand experience of the rewards, demands and behavior required to work in their selected field. Akron students would develop social and communication skills, experience the importance of teamwork and learn to express their ideas.

The mentoring component gives students access to a working professional in their chosen field and someone who can motivate and guide them during the last two years of high school, through the internship experience and beyond. Students learning in an actual work environment will be better prepared for college and the work force.

The benefit to our community and local business would be the creation of a work force that has the skills for the jobs of the future. Training and retaining Akron students could resolve many of the worker shortages predicted for various career fields.

Proposed Career Immersion Academy Themes:

This white paper explores a health care model, but immersion schools will be explored in other career fields such as:

- Health Care (Summa Health Systems, Akron General, Children’s Hospital, Select Specialty)
- STEM (Goodyear, Bridgestone, Akron Global Business Accelerator)
- Arts & Music (Akron Art Museum, Akron Symphony, Stan Hywet)
- Hospitality (local hotels and restaurants)
- Public Service (city & county govt., courts, public safety, law firms)
- Career Education (building trades, automotive, technology, customer service, engineering)
- Education (pre-K through 12)
- Media and Communications (print, broadcast, advertising agencies)
- Business/Finance/Professional (banking, insurance, accounting)
- Aerospace (avionics, aircraft maintenance)

On the horizon: Next fall, Akron Public Schools will open a new 5th/6th-grade Science, Technology, Engineering and Mathematics school. It is our hope to expand this school as the initial students move into high school. APS is seeking a location for a STEM high school. A possible location could be Goodyear Hall on the Goodyear campus. As Goodyear develops its new facility, APS would explore permanent space on the new Goodyear campus and immerse students into the work environment. The Bridgestone project offers a second possibility.

The STEM high school may be applied in smaller applications. For example, a smaller company may express interest in immersing 5-10 students at their facility. Each immersion school could be developed to fit the needs of the employer.

Conclusion

This white paper only begins to outline an immersion school program where students could work and learn in the career fields of their choice. Obviously, more work is required to solicit partnerships with local business enterprises. The synergy generated by a business that supports students' educational needs and a school system that can continuously supply a well-trained work force could have a profound effect on the growth of our local economy. Akron Public Schools is ready to support and partner in this effort and invites you to help us expand this concept to fit your future needs.