

THE FUTURE IS HERE
Frank Locker PhD, AIA, REFP

"The Future Is Here, It's Just Not Evenly Distributed." William Gibson

Gibson is right. The future is here. Not all at once and not everywhere. In high school education the future is already here in a handful of schools that produce the 21st Century learning experiences we all want for our kids. And it's done in ways that are more cost effective, more transparent and less bureaucratic than the typical American school.

Gather a group of educators, parents, and business and social service leaders, ask them what they believe our high school students need to be well prepared for the uncertain world that is the 21st Century, and they invariably say pretty much the same thing. The well prepared student should have:

- Strong foundation of basic skills
- Critical thinking skills
- Ability to solve problems
- Ability to gather, synthesize, and evaluate (discriminate) information
- Ability to get along and work with others
- Communication skills
- Technology skills
- Self starting skills
- Self knowledge, self motivation, self esteem
- World awareness

Occasionally the group might wish for creativity and leadership skills.

Then ask them how to achieve these goals in education today. Invariably they default to thinking about the programs and curriculum needed to graduate well prepared students via standard educational deliveries. This default thinking is what most people know, but it will not effectively and efficiently prepare high schoolers for the future. It is an outdated formula. The model of education most people (educators, parents, and politicians) know is a model developed more than a century ago to produce good workers for factories. Over the years we have refined, embellished, and improved the model to make education better, but it is still the industrial model of teachers working alone in isolated classrooms with captive groups of

students they oversee for a short time, carrying out tasks that are highly teacher controlled: note taking, test taking, discussions and occasional presentations, demonstrations. Most teachers do most of the talking, believing they are responsible for knowing all the content and dispensing it at the right pace. This model does little to foster the 21st Century goals we claim we have for our students.

We hope our 21st Century goals will be addressed more directly and more successfully in the future. Meanwhile that future, here now, can be seen in Henderson, MN, at the Minnesota New Country School. Started fourteen years ago, this charter school serves 120 students in grades 6 through 12. Students represent the full range of abilities and family demographics, except for one thing: right now 40% of students are Special Ed students. You can't tell who they are because the nature of the learning is so personalized. Students learn at their own pace. You can't tell which students are in 9th grade or are in 11th, either.



Student entry in the high mileage vehicle contest

Here is what is different, and why this school represents the future. Students learn in a highly personalized learning process: content requirements are wrapped around individual student interests. Learning is entirely project-based. Projects, initiated by students, are developed with a rubric that assures rigor and content. Projects are overseen by teachers who are each "advisors" to 18 students. Teachers meet twice a week for common planning time: one for housekeeping and one for professional staff development.

Student work is carried out in workstations that are junior versions of business office cubicles. Each student has a computer, tack board, bookshelves, and an office chair. Some have fish tanks, refrigerators, and i-Pods.



Student workstations

Teacher workstations are adjacent to and surrounded by student workstations and all of these are adjacent to and surround a gathering/presentation/display space about the



Gathering/presentation/display space

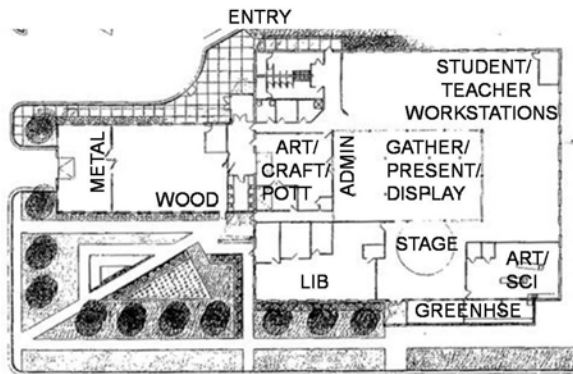
size of a small gym. A few breakout spaces, a video mixing studio, stage, an art/science lab, science lab, greenhouse, a pottery/art/crafts room, a wood lab and a metals fabrication lab complete the learning areas. The small library is supplemented by the town library.

Administration is in a few desks at the edge of the big space, just by the front door. A few small closed conference rooms support tutorial and visitor meetings. The gym is rented from a local community center.



Teachers meeting with students

The school's facilities show us the future as well. Ron Newell, co-founder of the school and now Director of Evaluations for EdVisions, a non-profit co-operative focusing on school reform, says "We could not do this kind of educational delivery in a traditional school building." Instead the building is a series of learning spaces surrounding the central gathering/presentation/display space. What is most striking about this plan is how little space is devoted to corridors.



Ninety-five percent of the building area is usable for learning, a 30% efficiency improvement over the more typical 70% factor. Whether that means the building is smaller than a building would be for standard educational delivery, or whether there are more learning experiences packed onto the building, the increased value is the same. Imagine this applied to all schools at a time when we want both increased learning and more cost effective facilities.

The success rates of the school are equally impressive. Consider this: passing Minnesota state standardized testing is a prerequisite for graduation. Even with the high Special Ed enrollment, most students graduate in standard time. Some may take 6 years. On the ACT

college entrance tests, the school's test scores are higher than the Minnesota average, which has the highest test scores in the nation. And this from a school which doesn't "teach to the test" but rather fosters critical thinking skills and student initiative.

In summary, here is why the Minnesota New Country School represents the future:

- Students are asked to do the kind of work that leads to critical thinking
- They are empowered with effective tools in a work environment that gives them personal space
- Students learn to be self motivated, or else they cannot complete their projects
- Teachers get to know their students really well, since they literally sit with them for up to six years. (Relationship building and adult role models are critical to effective learning)
- Students are responsible for their own progress. Graduation is when learning requirements are met, not when seat time is achieved

Seems like a win-win approach to 21st Century education.

Know any good examples of a school of the future? E-mail me: fl@franklocker.com



About the Author

Dr Frank Locker, an architect, former educator, and trained facilitator, consults on educational planning and school design from a base in the greater Boston area. See www.franklocker.com.

Frank was honored as CEFPI's Planner of the Year, has taught the annual school planning course at the Harvard University Graduate School of Design, and is a frequent speaker at school planning conferences. He adjudicates the annual DesignShare school building design awards program, has been an expert planner for the American Architectural Foundation School Design Institute, and writes a monthly column for www.schoolfacilities.com.

As president of DeJONG.LOCKER, he leads projects in Educational Visioning, Educational Program Development, Educational Specifications, District Master Planning, and collaborative Concept Design. Frank is also a senior planning consultant with Fielding Nair International. 2007 projects were in England, Alaska, Maine, Massachusetts, Michigan, Montana, Rhode Island, and Vermont.