

# Franklin Conference School Design

Frank S. Kelly, FAIA, SHW Group, 3/28/05

## US High Schools Bill Gates- an assessment

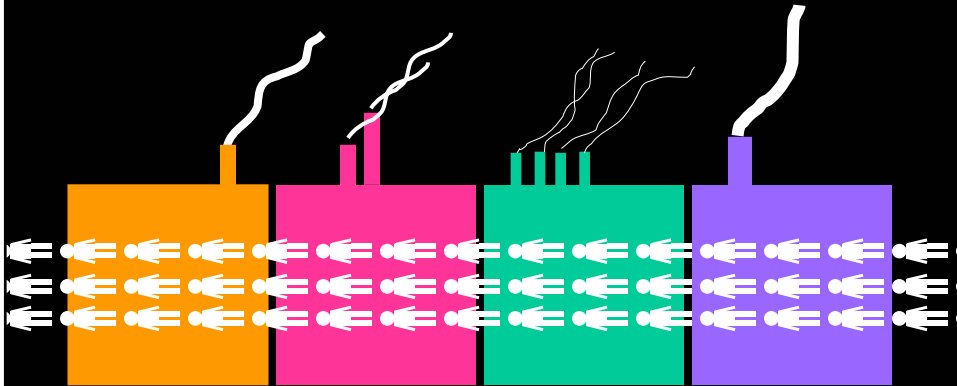
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School  
Design

“Our high schools are obsolete----they were designed 50 years ago to meet the needs of another age. Today, even when they work exactly as designed, our high schools cannot teach our kids what they need to know---”

Bill Gates (Feb 2005 at National Summit on High Schools)

## US High Schools Off by 50 years?

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The “**platoon school**”---  
an “**improved school machine**”

William Wirt- 1908

## US High Schools Wirt's Platoon School lives!

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- **1 teacher with 25 students per period in a classroom on a fixed schedule on a single subject**
- **Students move** from class to class, subject to subject
- **Equal increments of time** for all subjects, all students all the time
- Credit defined by **Carnegie units**, contact hours, seat time

## US High Schools Wirt's Platoon School lives!

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- Schools organized by **departments, disciplines**
- **9 month** agrarian calendar
- Fairness- everyone treated equally---  
**equality of access vs. outcome**
- Schools **teacher centered**---organized around teachers' spaces and work
- Technology- **1:4 computer:student** ratio with pre-computer instructional methods

## US High Schools Is it OK that---

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- Only **71%** of US students graduate from high school
- **30%** of college freshmen require remedial courses in math or English
- Less than **20%** of US 9th graders go on to earn a college degree
- Issue---**adolescent literacy**
- **16<sup>th</sup>** among developed nations re: graduation rate
- **14<sup>th</sup>** in percentage of students to go on to earn college degree

## US High Schools Reconsider 'school'

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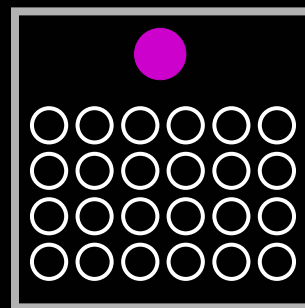
- Is 'school' a **place** or a **process**?
- Is 'school' the campus/building or is it the instructional/learning process?

## US High Schools Classrooms?

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Is it possible to consider teaching, learning without appending 'classroom' to every word? Is 'classroom'—**noun** or **adjective**?

Classroom Teacher



Classroom Materials

Classroom Technology

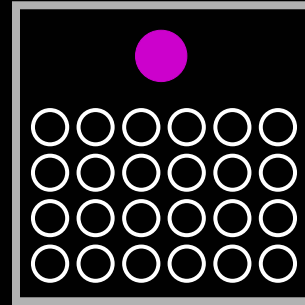
Classroom Learning

## US High Schools Classrooms?

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Is it OK to have the same  
size **group** in the same  
size **room** for the same  
amount of **time** every day  
for every **student** for every  
**subject**?

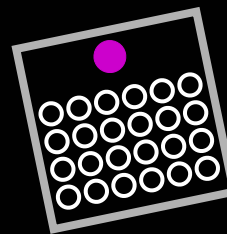
Math? Science?  
English? Social Studies?  
Foreign Languages?



## US High Schools Are classrooms too small?

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- It is inefficient, uneconomical and mind numbing for the teacher to repeat the same materials for several sections.
- It leaves insufficient time for preparation, working with individual students and keeping professionally up to date.

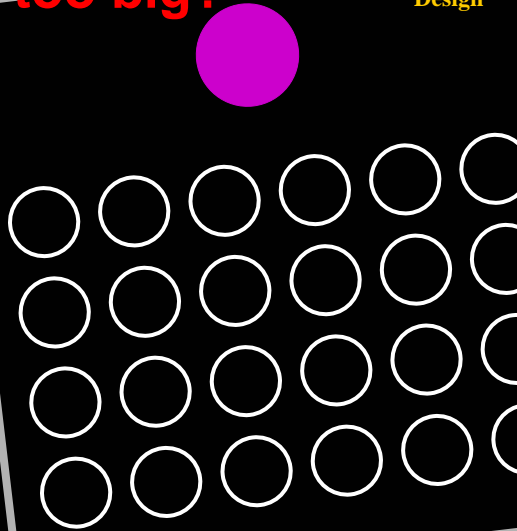


\*Trump, *Images of the Future*, 1959

## US High Schools Are classrooms too big?

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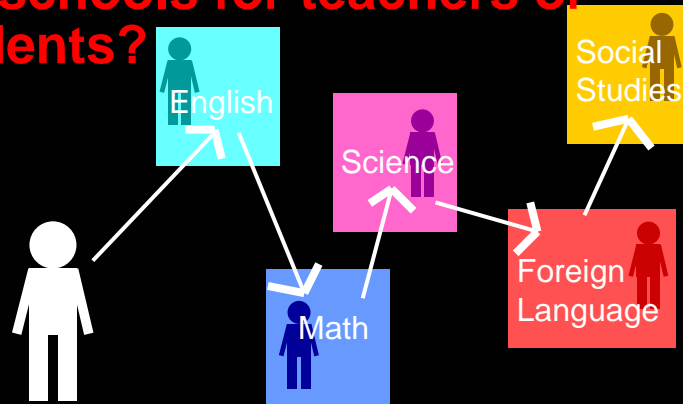
- Are 25+ students too many for effective study, freedom of movement, independent creative activity, and the development of student responsibility for learning?
- Are 25+ students too many for effective participation in discussions?



\*Trump, *Images of the Future*, 1959

## US High Schools Are schools for teachers or students?

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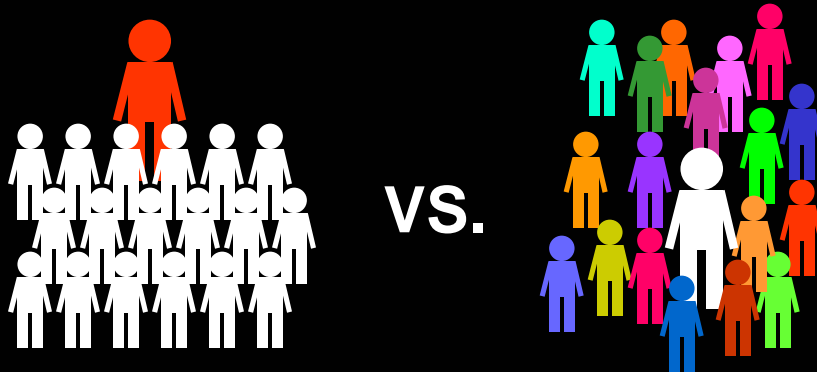


Schools are planned around **spaces for teachers/subjects**---students move from one to another-- a 'raw material' to be processed---**the platoon/industrial model**

## US High Schools **Breaking Ranks**

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- Use a variety of instructional strategies that **accommodate individual learning styles** and **engage students**

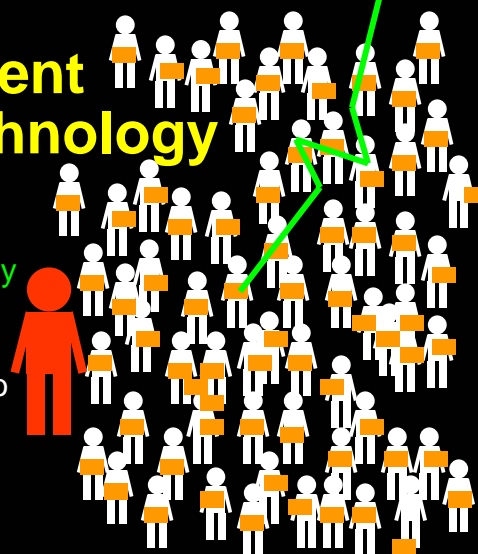


## US High Schools **Diverse Modes of Instruction**

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### **1 Primary Content Access via Technology**

Students would access instructional materials primarily via **technology** when and where they are ready. The role of the teacher would be to guide the students to the sources, to support and monitor their progress.



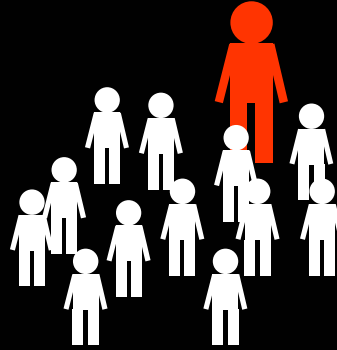
\*Trump, *Images of the Future*, 1959

US High Schools  
**Diverse Modes of Instruction**

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## 2 Small Group Discussion/Interaction

Small Group Discussion, Interaction (10-15) students. The purpose would be to provide an opportunity for students to develop communication skills, analytical powers and judgment---to interact with/to learn from each other.



\*Trump, *Images of the Future*, 1959

US High Schools  
**Diverse Modes of Instruction**

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## 3 Learn by doing

To “learn by doing”. In some courses, this would mean practice sessions and skill development. In other areas it would mean opportunities to test ideas, to explore, to investigate, and to complete projects—on campus, in the community, anywhere.

Students join together for studies that require group endeavors, specialized spaces/equipment.



\*Trump, *Images of the Future*, 1959

US High Schools  
**Diverse Modes of Instruction**

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## 4 Independent Study

Students would have unstructured time each day---"independent study time."

- Make decisions about how to best use the **time** to meet their responsibilities
- **Work** on assignments or on materials of personal interest
- Work **together** or **independently** on projects— **on/off campus**
- Meet frequently with **teachers, mentors**
- **Socialization, recreation**



\*Trump, *Images of the Future*, 1959

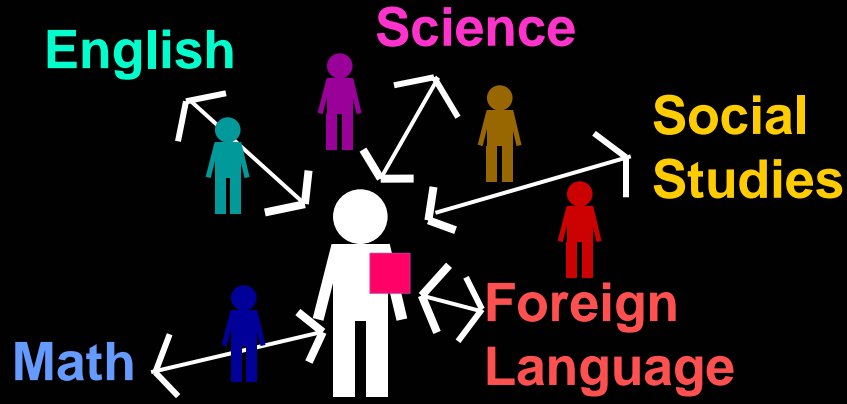
US High Schools  
**Project Based Instruction  
Individualized and Engaging**

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- Use projects that are of **interest to students**---that students choose/help to design---that will engage them in their studies
- Use projects to **integrate disciplines**
- Use projects that connect students with **resources/people in the real-world**---that students perceive as relevant
- Use **presentations/exhibitions** to assess student work

US High Schools  
**Student centered schools**

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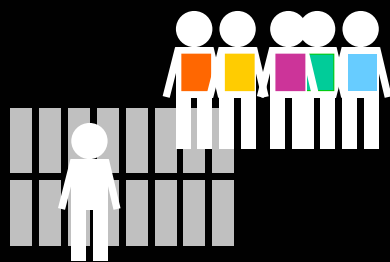
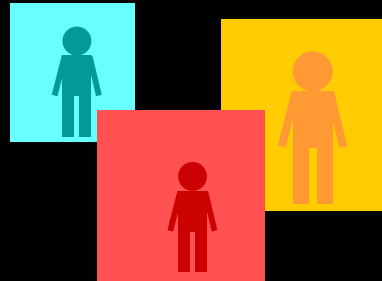


With varied modes of instruction and technology,  
instruction can come to students

US High Schools  
**Provide spaces for students**

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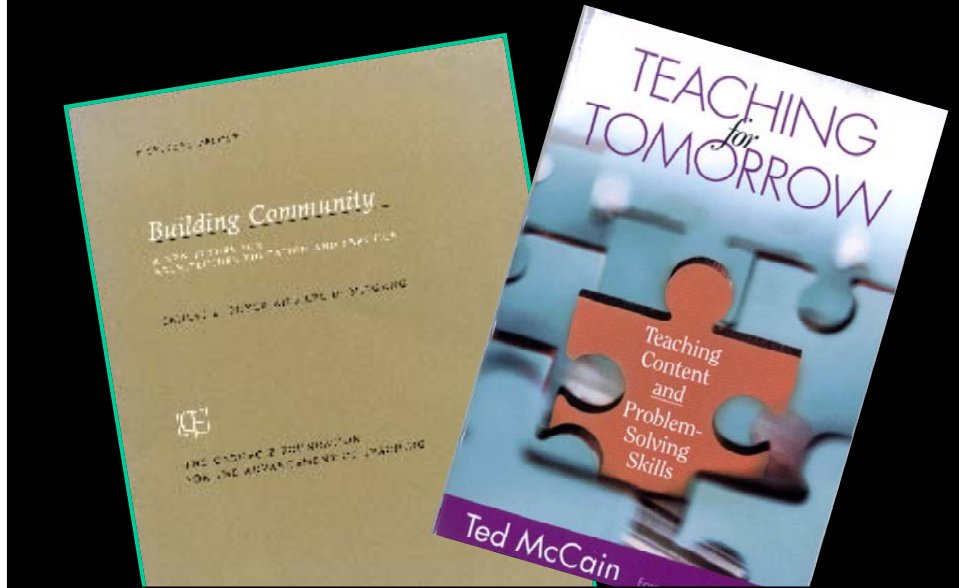
With traditional high school  
organized about **teachers**  
and their work spaces---  
**students have only**  
**lockers, backpacks**



With technology, parts of  
high schools should be  
organized about **students**  
and spaces where they  
work

## US High Schools Consider Precedents, Ideas

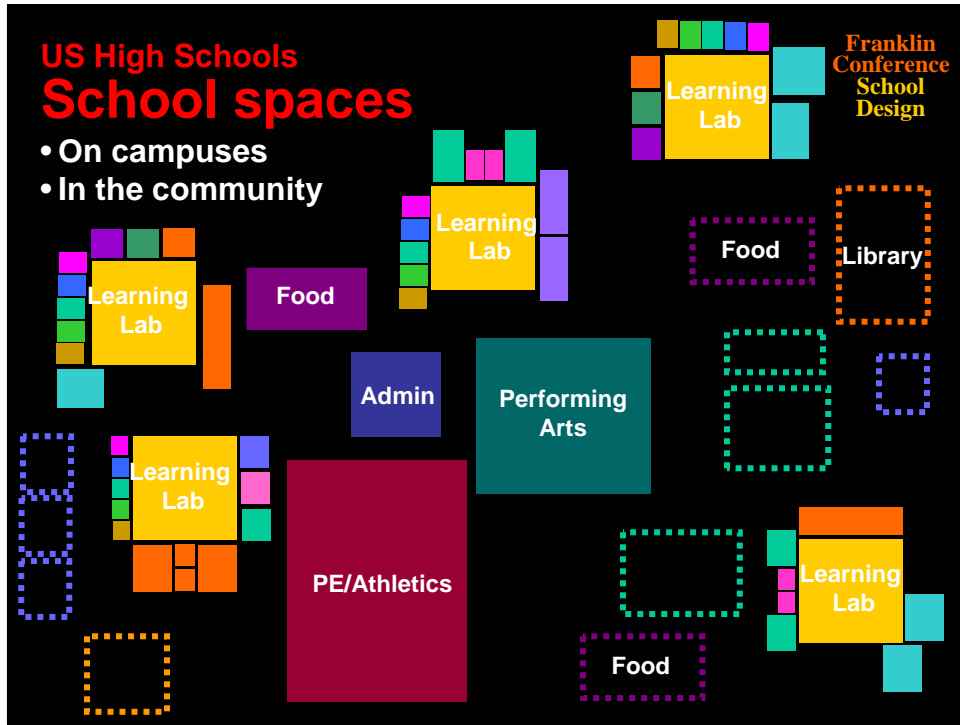
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## US High Schools Learning Labs

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## US High Schools Time?

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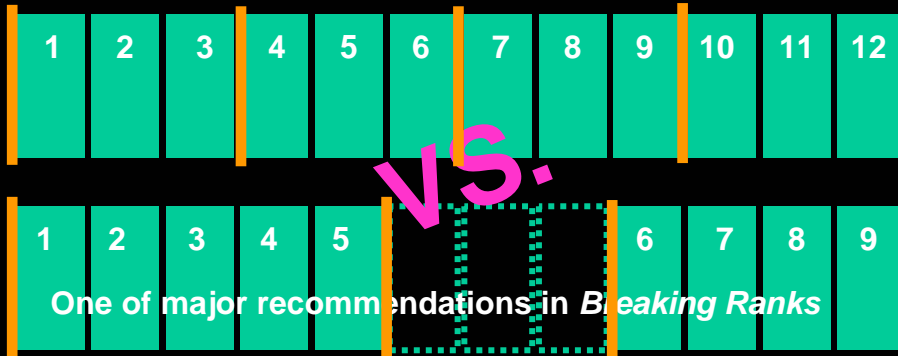
The industrial approach requires one clock, one calendar---and precludes individualized instruction.

If schools could provide self paced individualized instruction with lots of clocks/calendars—would we need them as places?

## US High Schools School- service vs. event

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- Make school a continuously available **service** vs. a seasonal/timed **event**.
- Operate schools all year- **12 months**



## US High Schools Varied times for varied methods

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**20%** **PRIMARY CONTENT ACCESS**  
Individual web or software based delivery of basic content supplemented by large group instruction

**25%** **SMALL GROUP DISCUSSION, INTERACTION**  
To interact with/to learn from each other, hone communication skills, judgment

**25%** **LEARN BY DOING- GROUP STUDIES**  
Science, arts, CTE, PE/Athletics

**30%** **INDIVIDUAL STUDY**

## US High Schools Flexible time for instruction

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- Break the school day into **small modules (20 minutes?)**
- Assemble them in different ways to obtain **varied instructional periods** appropriate to the mode of instruction and content of the subject.

**Fixed Periods**—instruction fitted to fixed periods regardless of subject, mode



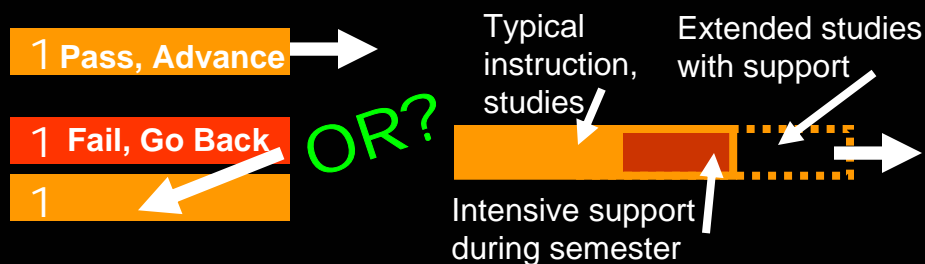
**Modular Schedule**—sections vary in length to suit subject, mode,

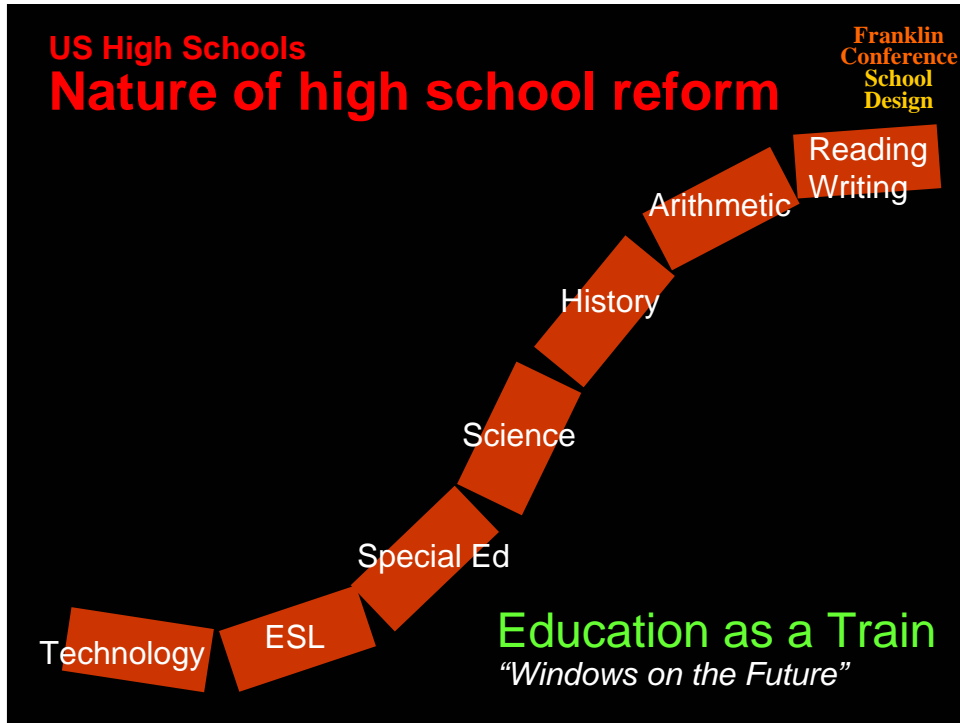


## US High Schools Disconnect Time from Success/Failure

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- Give students the **support to succeed** in a given time OR allow students to **continue studies** until they achieve the desired outcome.
- BUT **eliminate failure**---no credit until the outcome is realized.





US High Schools

**Get off the train!**

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**“even when they work exactly as designed,  
our high schools cannot teach our kids  
what they need to know---”**

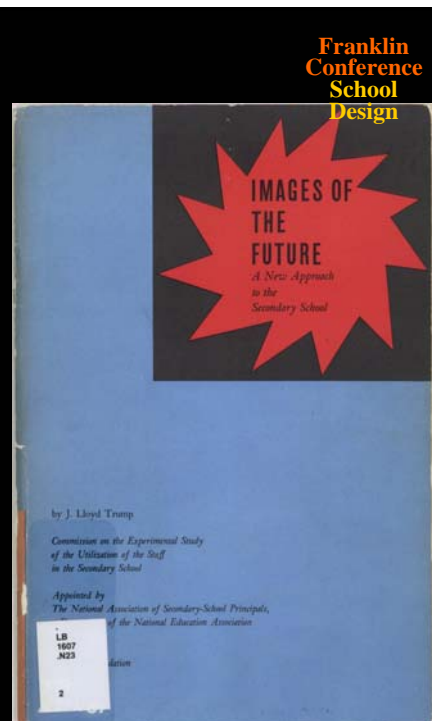
# Franklin Conference School Design

Frank S. Kelly, FAIA, SHW Group, 3/28/05

## *Images of the Future*

### **J. Lloyd Trump**

- Commission on the Experimental Study of the Utilization of the Staff in the Secondary School
- Appointed by: the National Association of Secondary-School Principals
- Supported by: Ford Foundation
- 1959
- From the NASSP Archives



## Westside High School Omaha, Nebraska

8701 Pacific  
Omaha, NE 68113  
402/343-2600  
Principal- Dr. John Crook  
<http://www.westside66.org/hi/schools/index.html>

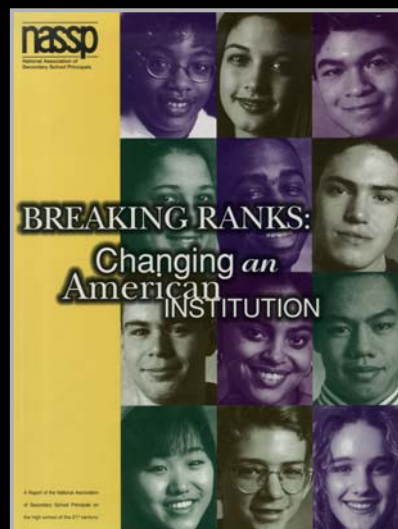
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## Breaking Ranks I Changing an American Institution

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- National Association of Secondary School Principals
- Carnegie Foundation for the Advancement of Teaching
- 1996

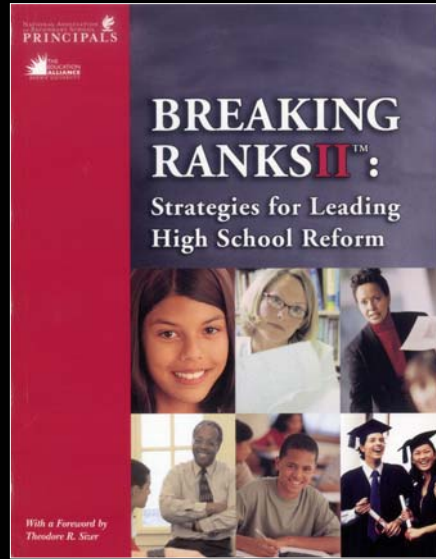


# **Breaking Ranks II**

**Strategies for Leading High School Reform**

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- National Association of Secondary School Principals
- The Education Alliance, Brown University
- 2004



# **BUILDING COMMUNITY**

**A New Future for  
Architecture Education  
and Practice**

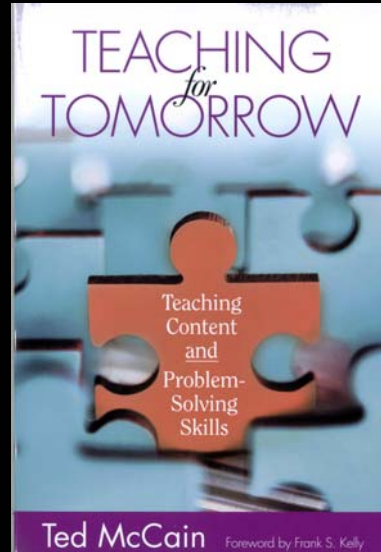
The Carnegie Foundation for the  
Advancement of Teaching  
Ernest L. Boyer, Lee D. Mitgang  
1996

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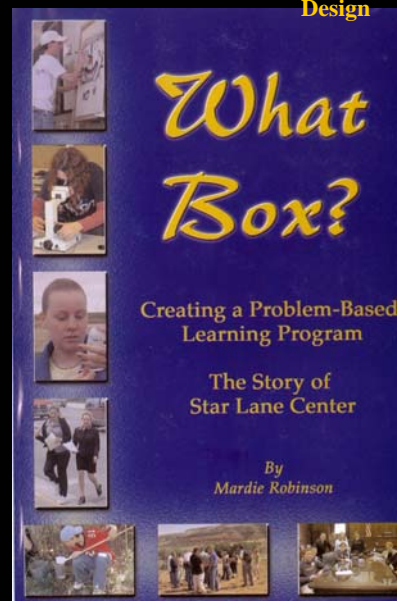
**Teaching for  
Tomorrow  
Teaching Content and  
Problem-Solving Skills**

Ted McCain  
Corwin Press, 2004  
ISBN 1-4129-1384-5



**What Box?  
Creating a Problem-Based  
Learning Program  
The Story of the Star Lane  
Center**

Mardie Robinson  
Star Lane Center  
111 Star Lane  
Casper, Wyoming 82604  
Starlane.1wyo.net  
2003



***One Kid at a Time, Big Lessons from a Small School***

Eliot Levine

ISBN 0-8077-4153-1

The book describes the history of the MET School in Providence, RI---a really different approach to education. It has spawned several other schools across the country. From their website (<http://www.bigpicture.org/TheMet.htm>), you can get to those of the other schools. The schools are very small, have no classrooms, no lectures. The students all have mentors outside the schools and learn via projects. They've had extraordinary success with inner city students.

***HIGH SCHOOLS ON A HUMAN SCALE***

Thomas Toch

ISBN 080703245X

Each chapter of the book describes a different small high school and how it works. Included are the Julia Richman Education Complex (New York), the Urban Academy (New York), the High Tech High (San Diego), The Met (Providence, RI), and the Minnesota New Country School (Henderson, MN). There are some really huge ideas here about different ways to make high schools work, where to spend your dollars, and how to make facilities.



The Metropolitan Regional  
Career and Technical Center

[www.metcenter.org](http://www.metcenter.org)

[www.bigpicture.org](http://www.bigpicture.org)

**WINDOWS ON THE  
FUTURE**  
*Education in the Age of  
Technology*

Ted McCain, Ian Jukes  
Corwin Press, Inc.  
2001

