Sample 21ˢᵗ Century Ed. Program

- Academy of Digital Arts and Sciences – nationally recognized series of courses within existing high schools designed around six critical 21ˢᵗ century skills

  - Program facilitates cross-discipline application of academic knowledge, creativity, design and innovation skills integrated with digital media and applied study of science and technology

- Pomperaug High 2013-14

  - 9th Grade Responsible Design Challenge - design a storage device with a modified environment that slows the ripening rate of food, reducing shipping costs and increasing shelf life

  - 10th Grade project - use Navicula, a sea-ice algae that contains an anti-freezing protein, to reduce road salt usage in the Northeast. ThinkNature, the students' biotech company devoted to clean and reliable products, researched algae and its effects on ice and the surrounding environment.

Sample 21ˢᵗ Century Ed. Program

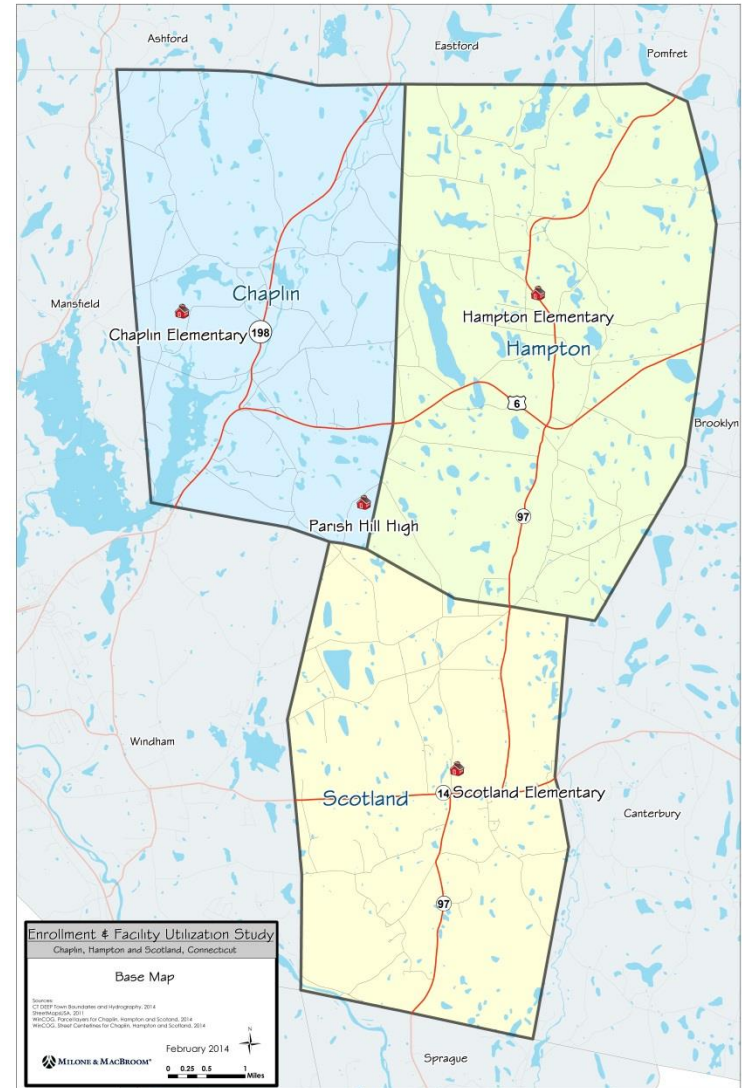- E-Commerce Entrepreneurship class - help prevent alcohol consumption in schools and rehab centers. With chameleon, color-changing technology, the students developed a cup, the Alco-Lert, that alerts teachers and authorities of the presence of alcohol in the cup chameleoncop.com

http://pompfresh.org

Educational Programming and Operations

May 27, 2014

Introduction

- Re-Cap of Working Group Previously Identified Strengths and Weaknesses, Preferred Future

- 21st Century Education Model

- Educators/ Administrators Focus Group Summary

- Operational Assessment

- Priority Issues Identification

Working Group Re-Cap

Strengths

- Students have strong core subject skills and knowledge
- Skills evident upon entrance at Parish Hill
- Students are well-grounded; limited discipline issues
- Community-school bonds are strong
- Each school has unique programming
- Low staff turnover (experienced, knowledgeable)
- Small cohorts - personalization of education
- Student-centered communities
- Strong Special Education programs
- Strong early-learning programs (active PreK, and long history of full-day K)
- Good breakfast/ lunch programs

Weaknesses

- Lack of uniformity in preparation for high school
- Resources
- Budgets are hard to pass
- Financial constraints of taxpayers/ lack of tax base
- Declining enrollments
- Low staff turnover (limits new ideas, practices)
- Programming challenges due to small size (hard to start and maintain)
- School transition (from elementary to middle/high) not at good age
- Small grade cohorts
- Spread of information and misinformation among communities
- Competition from Windham STEM magnet program
- Social service needs of students

Working Group Re-Cap

Initial Discussion - Preferred Future

- K-8
- K-5, 6-8, 9-12
- High quality early-learning center (PK-2) and elementary with potential to attract tuition students
- Stronger emphasis on Common Core
- Integration of STEM programming into general curriculum
- More shared services among three towns (administration, special programs, special education)
- Improved social services for students/ families
- Meeting the needs of <u>all</u> students
- Greater challenges for high-achieving students
- More diverse academic offerings with larger grade cohorts
- Group classrooms around academic levels (potential grade pairing throughout elementary school)

21ˢᵗ Century Education

- Learning to collaborate with others and connect through technology via the digital landscape

  - Ways of thinking – critically, creatively, learning to be a more effective problem solver and decision maker

  - Ways of working – communication and collaboration

Barrows STEM Academy (K-8, 600 students), Windham

  - Tools for working – information and communication technology, information literacy

  - Skills for living in the world – citizenship, life and career, personal and social responsibility

MILONE & MACBROOM®

21ˢᵗ Century Learning

Working together to solve a common challenge, learning and exchanging ideas, using technological awareness and simulations, and capitalizing on social networking to develop social and intellectual capital

Resources
www.p21.org
www.atc21s.org

21ˢᵗ Century Learning

- Common Core - corestandards.org
  - Council of Chief State School Officers
  - Governor's Association for Best Practices
- US students to be globally competitive
- Benchmark US students against those in top performing nations
- Key shifts:
  - Greater focus on fewer topics
  - Linking topics and thinking across grades
  - Greater rigor – conceptual understanding, procedural skills and application

21ˢᵗ Century Learning

Movement away from racing through topics a mile wide and inch deep to narrowing and deepening the focus of the study on the major work of each grade, e.g. Gr. K-2 math concepts: skills and problem solving related to addition and subtraction

Check out the video on corestandards.org

21st Century Learning Environment

20th vs. 21st Century
Has the landscape changed?
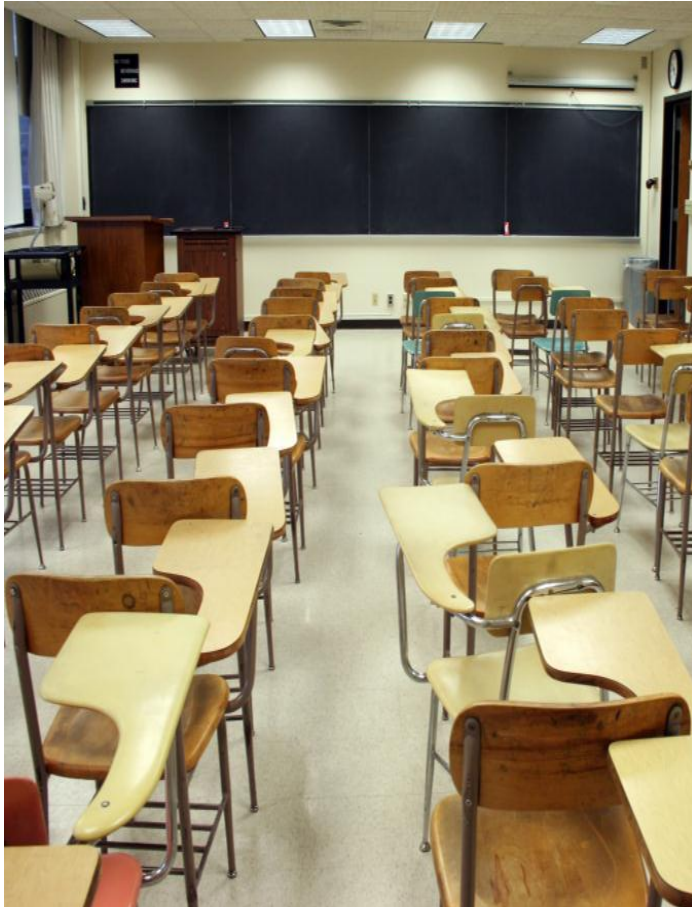
21ˢᵗ Century Learning Catalyst

- Transform from an organization that provides all children with an *opportunity* to learn to a system that guarantees all children *will learn...*
  - Increase emphasis on curriculum development
  - Increase emphasis on professional learning
  - Increase emphasis on meaningful, relevant assessment (Curriculum, Programs, Teacher Performance)
  - 21ˢᵗ century infrastructure in place – connectivity everywhere

Union School (K-8, 70-80 students), Union

Sterling Community School (K-8, 480-500 students), Sterling

21st Century Learning Catalyst

- No isolated school district has the expertise, human resources, and financial resources to do this work alone – which is why this is all so challenging and uncomfortable

- Implications for four small school districts...

Benefits of 21ˢᵗ Century Program

Pomperaug Digital Academy Example

- Students engage in public speaking

- Opportunities for student, community and teacher collaboration

- Application of marketing skills

- Using college-level technology skills, i.e. iMovies, virtual worlds

- Students encouraged to take intellectual risks

- Teachers as active learners

- Math, science and English skills come alive

- Students develop a digital portfolio to showcase talents for colleges and universities

- Everybody works, no one coasts

Pomperaug High Academy of Digital Arts and Sciences won top award at the CT Student Innovation Expo

Small School Populations

Pros

- Staff ability to nurture students – proactive in character education/ building

- Staff willingness and ability to take on additional instructional responsibilities out of need and professional responsibility

- Collection of smaller schools provide opportunities for shared services

Cons

- Potential for unequal elementary instructional experiences (at three independent schools) could impact students' secondary school experiences

- Small sizes limit curriculum/ program offerings available to high school students

- Staff taking on additional instructional responsibilities limits curriculum development and expertise – lack of specialists

- Concerns over level of parental involvement

Systems Policies and Practice

- Need for vertical and horizontal articulation of curriculum for all grades
  - Currently no opportunities for common and cohesive curricular experience across three elementary schools
  - Benefits to students with cohesive curriculum

- Ideas for Curriculum Development
  - Coordinated civics awareness/ responsibility program
  - Seamless PK-12 program with "environmental sustainability studies" integrated throughout
  - Stronger technological resources and programming
  - Begin an ongoing tri-town community dialogue around the issues facing public education in the mid 21st century

Educators/ Admin Focus Group

Administrators' Concerns

- Competition for high school students
- Barrows STEM (K-8) competition for elementary school students

Overlap with Working Group

- Concern over competition from STEM and other schools

- Lack of uniform preparation for middle/ high school

- Limited programming opportunities due to small cohort sizes

- Current elementary schools serve as community hubs

- Lack of staff turnover and staff multi-tasking limits curriculum development and specialization

Disconnects with Working Group

- Students strong in core subject skills – uneven preparation for middle/ high school?

- Unique programming at each elementary school – benefits to students over long-term?

- Small cohorts lead to personalized education – preparation for middle/ high and benefits to students over long-term?

- Student-centered communities – lack of investment in regional facility?

- Long-tenured staff are knowledgeable and experienced – small systems require staff multi-tasking such that little opportunity for specialization exists

Assessment

- Communities need to weigh the value of maintaining existing organizations, and determine the pros and cons of the current structure versus consideration of a more singular district approach

  - Is the current structure of 4 independent school systems helping or hindering quality education for your students?

  - Is the current operational structure helping or hindering your communities – budgets, real estate values, attracting families, etc.?

- The onset of common core state standards, concept-based instruction, and increased student and staff accountability will *require* changes to current operations

  - Curriculum

  - Technology

  - Redundancies across districts

Assessment

- The elementary schools serve as a hub of local activity for their respective communities and provide a great sense of autonomy

    - What about Parish Hill?

    - Bringing in tuition students vs retention of existing students and families?

    - Lack of investment evident in facilities

- School leaders understand that preservation of the status quo may not be in the long term interest of all stakeholders, but what the alternative should look like and what transformation presents will require more discussion

21st Century Learning Implications

- Three small elementary districts feeding into a small secondary district trying to accomplish all that is expected is asking a lot

- Public education as an institution has to operate smarter, more efficiently

- The work is simply too critical, too dynamic, too costly to assume everything will happen by osmosis or that existing staff can take this on as an addendum to their daily instructional responsibilities

21st Century Learning Implications

- Transform duplicity into opportunity capital by considering reorganization - make more effective use of existing resources

  - Insure Instructional Coordination PK -12
  - Coordinated curriculum transformation
  - Coordinated student performance
  - Coordinated digital resources
  - Professional teacher practice
  - Financial resources efficiencies

- Unified leadership is necessary for strategically planning where you want to be in five years

- Systems approach will have its organizational benefits and compromises

Benefits of PK-12 Regional Systems

- Education – more programming opportunities
- Leadership – single board of education and administration
- Operations – savings and/or cost avoidance through increased efficiency
- Flagship school – usually the high school – serves as community focal point
- Curriculum – cohesive, with coordinated development and implementation
- Staff – opportunities for specialization, better able to attract high-quality staff

Issues Identification/ Prioritization

Having reviewed changing educational landscape, focus group results, and consultant assessment of current systems:

- What issues do Chaplin, Hampton, Scotland and Region 11 schools need to address in the next five - ten years?

- What are the top 3 priority concerns?

Issues Identification/ Prioritization

Refine your vision for a preferred future:

- Ten years from now, what will the education system(s) of Chaplin, Hampton, and Scotland look like?

- How will the priority issues have been addressed?

Next Steps

- Preliminary Alternatives Analysis – June 24th
- Refined Alternatives – July 22nd
- Working Group Draft Recommendations – Sept. 23rd
- Working Group Final Recommendations – Oct. 28th