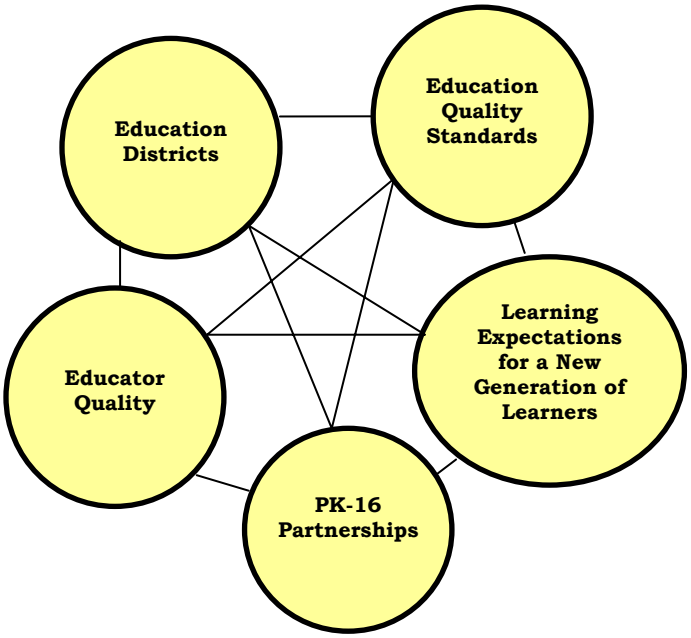
Opportunity to Learn

Defining Vermont Education for a New Generation of Learners



Final Report of Policy Recommendations
Education Transformation Policy Commission

Submitted to the
Vermont State Board of Education
December 2009

The fact is that given the challenges we face, education doesn't need to be reformed, it needs to be transformed. The key to this transformation is not to standardize education but to personalize it, to build achievement on discovering the individual talents of each child, to put students in an environment where they want to learn and can naturally discover their true passions.

The Element: How Finding your Passion Changes Everything
Ken Robinson, Ph.D. 2009

If our policy recommendations can accomplish anything, the Commission is hopeful that they will dramatically open many new learning opportunities for our children so they can achieve the knowledge and skills they need to be successful in the 21st century. The most difficult challenge will be transforming old paradigms about what is taught and how teaching and learning take place. Our children's futures are not our past! Content mastery and recall are no longer enough. Our children must create meaning in complex and unpredictable environments requiring them to synthesize information and apply it in novel and productive ways.

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Policy Commission Members

1. Donald Collins – Member, State Board of Education
2. Mike Deweese – Superintendent, Chittenden Central SU
3. Johannah Donovan – Chair, VT House Education Committee
4. Retta Dunlap – Parent and Education Advocate
5. Teri Geney – Parent and Local PTA President
6. Brian Howe – Teacher; VT Professional Standards Board
7. Tom James – Former Chair, State Board of Education
8. Christopher Koliba – Director, Master of Public Administration, University of Vermont
9. William Rivard – Principal, North Country Union High School
10. Chris Robbins – Business Representative; Former State Board Member
11. William Romond – Former Teacher and Former Deputy Commissioner
12. Laura Soares – Parent and Local School Board Member
13. Martha Tucker – Superintendent, Caledonia Central SU
14. Kyle Weinreich – Student, Twinfield High School
15. Karrin Wilks – Senior Vice President, Vermont State Colleges

Kay Charron, Program Coordinator, Department of Education, facilitated the work of the Commission.

December 15, 2009

Vermont State Board of Education
Department of Education
120 State Street
Montpelier, Vermont 05620

Dear Board Members:

We respectfully submit this final report of policy recommendations. We began working in March of 2009, and have focused our efforts directly on your charge:

> *Recommend a state policy framework that will build and enhance the capacity of schools and communities to reinvent Vermont public education so all students acquire the knowledge and skills needed for college, careers, and citizenship in the 21st century.*

We researched national education re-design models and policy initiatives by other states, and have talked with Linda Darling Hammond, a recognized national leader in education transformation. We were also guided by the breadth of professional experience represented among the members of our commission: teaching, leadership, K-12 education administration, educational research, parenting, postsecondary administration, state administration, special education, career and technical education, local school board experience, legislative experience, and experience as a student.

Early in our efforts, we agreed that we would focus on policy areas that have the largest impact on educational practices. We also agreed that our policy recommendations would specify goals and enable accountability while leaving opportunity for shaping implementation strategies at the local level. We believe our recommendations offer a coherent policy framework. It is important that you view them as interdependent, as they are mutually reinforcing. Quality education is dependent on a system of variables.

Our policy recommendations are organized into five sections. Each section focuses on an issue, offers analysis and rationale for action, and recommends specific policy actions. We hope that you find our recommendations helpful to your goal of establishing a coherent policy framework to support and advance education transformation.

Our policy recommendations provide a starting point for your policy efforts. We offer suggestions for how you might move the Policy Commission recommendations forward to implementation. *We feel it is imperative that you reflect and discuss these recommendations and solicit additional input from other sources, such as students, parents, educators, school boards, professional organizations, legislators, and department staff.* Some of our recommendations may be controversial and we encourage you to organize allies as the policy work advances. Many individual commission members are willing to serve again on subsequent task forces.

Sincerely,

Members of the Education Transformation Policy Commission

Introduction

While many education policymakers believe that the best way to face the future is by improving what they did in the past, school improvement does not lead to education transformation. The Policy Commission has worked to hold its focus on education transformation and not merely school improvement.

What should learning look like for our new generation of learners?

The heart of our answer underlies all our policy recommendations:

- **New learning expectations for learners** – What our children need to know for their futures is profoundly different from what we needed in the past.

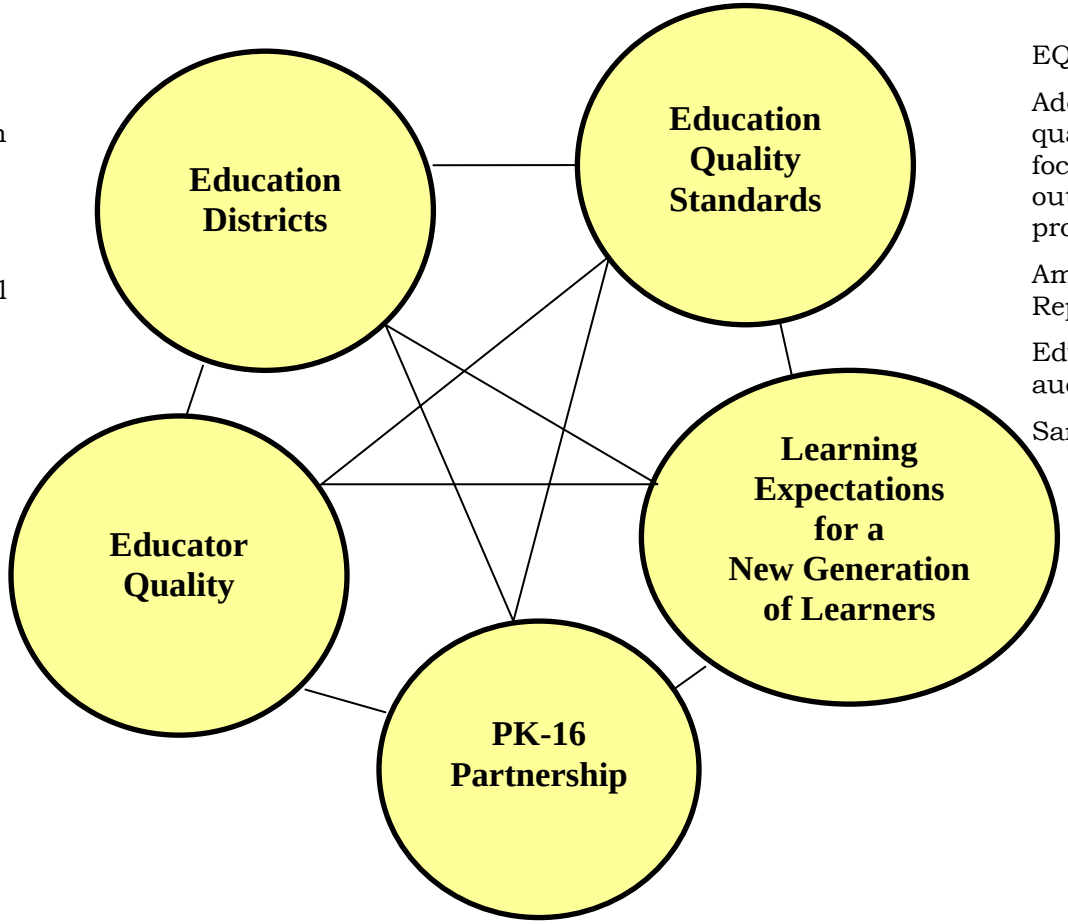
- **New and multiple ways of deep learning** – Our children need interdisciplinary and collaborative educational environments that support them as they explore and inquire, draw critical interpretations from multiple information sources, and interact with local, national, and global experts as they build and apply knowledge and skill.

- **Proficiency-based education** – Our children need ongoing opportunities to challenge and demonstrate their proficiency levels as they work with supportive adults who strongly believe that children can and will reach full proficiency in their own ways and time.

- **Equity of education outcomes** – All our children need to attain 21st century proficiencies. Mediocrity or failure is not an option regardless of life circumstances; all must be prepared for success in college, careers, and citizenship in a 21st century world. This commitment to equity became the basis for the title of this report – Opportunity To Learn.

The Policy Commission recommendations help to move the Vermont education system toward these learning attributes. It will require dramatic changes from the education structures and practices with which we are most comfortable. Even as the Policy Commission developed its recommendations, the lack of new language to describe the needed changes was a struggle. Old language – "school," "teacher," "student," "grade levels," "tests" – effortlessly came into our discussions. We worked to replace these old words to the extent we could, without impeding communication to our readers. As a community we do not yet have new words to convey new practices, so when we felt communication was aided by the old terminology we used it in our report. Our work strengthened our understanding that education transformation requires a systemic approach. Transforming the desired outcomes of our education system requires adjustment of the system's design. **Our recommendations are interdependent and should be approached as a comprehensive whole, though we divided them into five sections.**

Overview of Recommended Policy Actions



Redistricting Commission

Regional education districts

Powers of new district boards

Community School Councils

Multi-year transition

EQS Commission

Adopt new education quality standards that focus on learning outcomes and processes

Amend 16 VSA § 165 Repeal SQS

Education quality audits

Sanctions/incentives

Revise educator standards for 21st century teaching & learning practice

Establish educator career ladder & tiered proficiency-based licensing

Strengthen educator prep program approval & clinically based learning

Establish educator induction & mentoring processes

Strengthen professional development system, including job-embedded options for educators and leaders

Learning Expectations Commission

Adopt amended VT Framework

Three stages of learning progression

Performance assessments

Proficiency-based graduation

Non-graded education system with fluid and flexible learning structures; learners advance based on demonstration of proficiency rather than by age, grade level, or course completion

Establish state-level PK-16 partnership

Develop PK-16 master plan with specific performance targets and to address performance gaps based on socioeconomic status

Implement early commitment programs

Establish College Readiness Standards

Expand and stabilize dual enrollment/early college options

Principles & Values Guiding the Commission

With such a large and important charge, the Policy Commission believed it was important to guide our work with a set of principles and values held collectively by the commission. This provided an initial framework to unify our approach on the nature of policies we would develop. We wanted the design of our policy recommendations to encourage . . .

- **Focus on learner outcomes -** Educators must be unwilling to let anything else take priority, e.g. being unwilling to let finances drive the outcomes produced, instead being willing to change the finance system so that it supports the desired outcomes.

- **Respect for learners -** The system design must recognize and value that the learners have an important voice in what and how they learn. System design must support engaged learners, responsible for and actively engaged in their own learning through a personalized learning plan.

- **Simplicity and coherence -** Current laws, rules, and policies should be eliminated unless they fit within the new transformative framework. Title 16 needs to be redrafted with a focus on transformation to bring coherence and clarity to piecemeal laws created over the past decades.

- **Flexibility -** Policy should drive improved outcomes, not regulate inputs. Policies should not dictate "cookie cutter" approaches but rather encourage local/regional creativity and innovation in how to best achieve desired education outcomes. School structures are flexible and provide access to a variety of learning opportunities inside and outside the school building/classroom, including substantial opportunities for work-based learning, service learning, job shadowing, and dual enrollment in college courses. Flexible learning environments support relevance.

- **Partnership -** Education is a partnership between learners, families, educators, and local communities.

- **Educator Support -** Quality education depends on quality educators. Educator preparation and ongoing, embedded professional development support improved student performance and transformation.

- **Accountability -** Education quality is measured through learner achievements of knowledge and skills and learner outcomes (e.g. graduation, college success, civic contribution). Learners need multiple ways and opportunities to demonstrate achievements beyond traditional testing.

- **College Readiness -** All students will be college ready. Vermont is committed to increasing postsecondary aspiration, continuation, and completion rates to educate the top 100% of Vermonters. A PK-16 system aligns 21st century standards, goals, and outcomes assessment aimed at increasing educational attainment overall.

Section I:

Education Quality Standards (EQS)

Purpose:

To enhance education quality, increase continuous quality improvement in student achievements, and strengthen accountability for outcomes.

Student achievement results are important indicators of educational quality. However, achievement results can be interpreted meaningfully only in the context of the system that produced them.

Education & Accountability Office, Ontario, Canada 2009

Rationale:

What are the factors that directly impact the quality of education? To answer this question, it is helpful to consider it through a typical systems change model. A systems change model looks at three key questions:

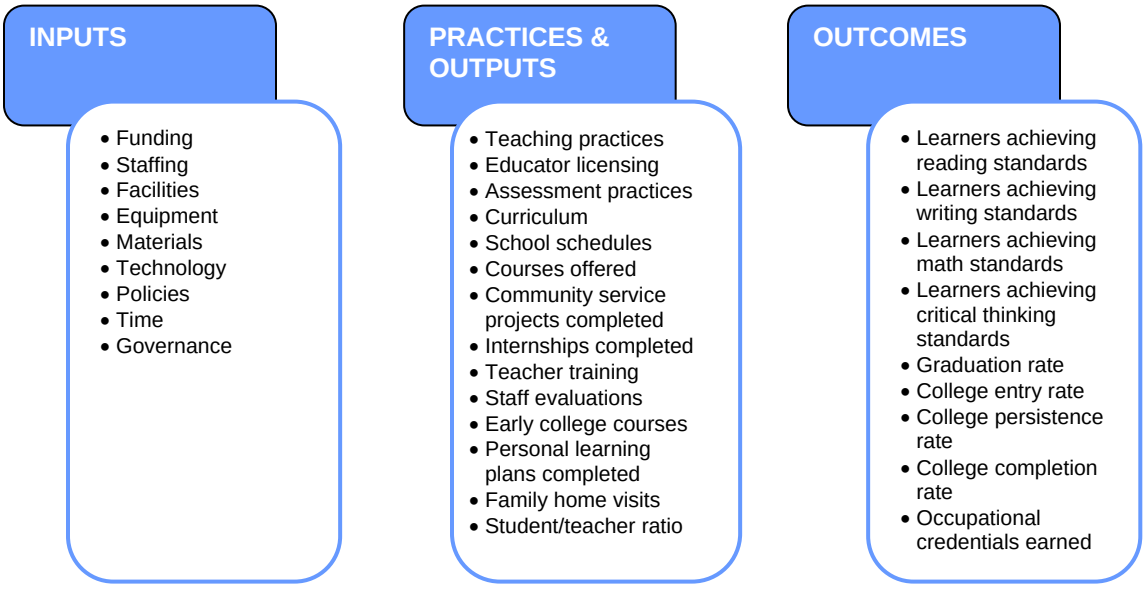
What are we investing in the system?

What services and products does the system generate?

What results are being achieved?

This chart illustrates a **partial sample** of education system attributes that are linked to each of these questions.

Figure 1: System Logic Diagram



To effectively address education quality, it is important to apply a systemic approach. To improve quality one must first accurately characterize how the system functions now. Second, a well-founded theory for change must be developed. Third, it must be determined what attributes of your system have the greatest impact on its ultimate desired outcomes.

With this as a framework, the Policy Commission reviewed Vermont's existing School Quality Standards (SQS). Vermont's existing SQS, instituted in 2006, represented an effort to ensure "that all Vermont children will be afforded educational opportunities which are substantially equal in quality." Largely seen as a replacement for the former public school approval process, the SQS focused broadly on more than 20 items related to the operation of schools. We characterized these items in terms of their roles from a systems perspective:

Figure 2: Current School Quality Standards

Inputs:
- ➔ School leadership
- ➔ Access to technical education
- ➔ Non-discrimination
- ➔ Staffing requirements
- ➔ Student support services
- ➔ School counselors
- ➔ Health services
- ➔ Library
- ➔ School facilities
- ➔ Access to technology
- ➔ Standards for student performance
- ➔ Graduation requirements
- ➔ Curriculum requirements

Practices & Outputs:
- ➔ Action plans for annual school improvement
- ➔ State and local student assessments
- ➔ Staff evaluations
- ➔ Monitoring and reporting processes for SQS
- ➔ Reporting school performance to community
- ➔ Instructional practices
- ➔ Professional development

Outcomes:

None specified in current SQS

Aligning the major SQS themes with a typical system model format, it becomes apparent that the school quality standards drafted in 2006 were heavy on ascribing inputs and practices rather than outcomes. Outcomes are the evidence of attainment of the overarching goals ascribed to the educational system. What learner achievements and outcomes does Vermont want its public education system to achieve? Without clear and precisely defined outcomes that are broadly understood and supported, it is impossible to truly manage and improve education quality. This essential task must be completed.

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2009 External Review of Vermont's SQS

The University of Connecticut's Center for Education Policy Analysis conducted focus groups with Vermont educator practitioners and with some staff from the Department of Education to learn about the implementation of the SQS. Their analysis of these data suggests that the SQS, as currently written, will have limited impact on education quality.

Several key issues were repeatedly identified as reasons that the existing SQS has had limited impact. One issue identified is that the SQS requirements are not measurable and are open to broad interpretation. Therefore, SQS is not seen as valuable or as having real consequences for noncompliance. A quote from one practitioner describes the frequent

lack of clarity in the policy. "There are hundreds of interpretations of what is mandated and what is important; as a result the effect is negligible."

Another critical issue repeatedly identified was that SQS is based on a faulty "theory of change" that placed emphasis on mandating school inputs, with little attention paid to practices and outcomes. Many participants stated that even if a school implemented each of the required school quality standards, student achievement would not necessarily increase. There were strong feelings that SQS set input requirements that were not directly related to student achievements, and that some of them were even in conflict with the State Board's transformation vision for more flexible, personalized learning opportunities. The recent Vermont study on effective schools (*Roots of Success: Effective Practices in Vermont Schools* November, 2009) may offer a more productive theory of change.

In addition, it is apparent that no system for using the SQS to evaluate school performance was designed. There is no agent chiefly responsible for monitoring SQS compliance, nor is there a process in place to assist schools in achieving compliance with the SQS. Citing the University of Connecticut report, "state department staff reported that the School Quality Standards have specific reporting requirements, but monitoring and supporting the schools is a significant challenge." (CEPA NESSC Report.) Clearly, a system for monitoring, enforcing, and aiding educational systems to achieve educational quality is needed. The development of partnerships between the Department of Education, the state's higher education institutions, and the regional professional development regions is needed to achieve these results.

Education Quality Standards should be focused on outcomes and practices that have the greatest impact on the quality of education.

From this analysis, the Policy Commission recommends that the existing School Quality Standards should be repealed and replaced with a new set of Education Quality Standards (EQS) that align with the attributes of education transformation described in this document and by the State Board of Education. These Educational Quality Standards shall serve as a guide for all PK-12 education institutions in the state who receive public funding and therefore, in some way, are accountable to public governance. They should capture the vision of transformation so that the new attributes of quality are compelling, observable, and attainable. They should be focused on outcomes and practices that have the greatest impact on the quality of education, and must include some form of quality assurance mechanisms, such as education quality audits and quality incentives/sanctions. Every education institution receiving public funding should

be required to review how it is facilitating quality learning options and if it is attaining the desired outcomes for all learners.

Basis of Policy Recommendations:

To accomplish the stated purpose and to clarify its policy recommendations, the Commission shares its thinking in three areas:

1. Principles for drafting Vermont Education Quality Standards (EQS)
2. Proposed structure for Vermont EQS
3. Dissemination and implementation strategy for meaningful application of EQS

Principles for Drafting Vermont Education Quality Standards

Certain guiding principles for Education Quality Standards will change their orientation and content from the current SQS.

- **Focus on education quality NOT school quality**
  - It is much easier to define conditions and resources schools must provide for learners than it is to truly grapple with the question of what constitutes a quality education.
  - Much of the current SQS mandates school resources and conditions (inputs). Many of the SQS mandates (e.g. licensure, class size, librarians, special education staff, school counselors, nurses, required curriculum, required hours of instruction, standards for facilities, access to technology) are not seen as having a direct impact on student achievement.
  - Many sections of SQS DO NOT belong in new Education Quality Standards. Sections 2120.8.2, 2120.8.4, 2120.8.5, 2120.8.6, 2120.8.9, 2120.8.10, 2120.8.11, 2120.8.12, and 2120.8.13 should be repealed or moved to another policy area addressing School Facilities and Safety Standards.
  - Minimum school quality mandates should not be confused with Education Quality Standards. School and education are not synonyms.

- **Focus on universal outcomes rather than over-prescribing inputs**
  - The best way to determine education quality is to evaluate if learners are achieving the desired outcomes. This is the true measure of education quality. It is not easy.
  - There is a need for broad agreement across Vermont about what outcomes of a public education are desired, and there must be acceptable ways to measure and/or observe if learners are achieving them. Each valued outcome is worth measuring.
  - Establishing public policy that clearly defines these valued outcomes will guide what actions are necessary to ensure every learner can achieve them.
  - Without clear and compelling outcomes there is little basis for setting graduation requirements or providing engaging and relevant learning opportunities.

- **Focus on transformative teaching and learning practices**

  [see Section IV on Educator Quality for more information]
  - Education quality derives from the quality of learning opportunities available to learners. Vermont's EQS should incorporate the most powerful teaching and learning practices, as evidenced with research. Many of these are identified in the "Map of Transformation" located in Appendix D.
  - Sections 2120.8.3 (support services), 2120.8.8 (instructional practice), 2120.8.1(school leadership), and 2120.4 (professional development) of the existing SQS need to be substantially revised to reflect teaching and learning practices for new generations of learners and to establish quality standards that can be validly and reliably evaluated.

- **Focus on ways to make education quality matter for education institutions**
  - The EQS should include incentives and sanctions that give meaningful importance to actual performance and motivate continuous improvement.

- **Harness the creative insights from Vermont's educational community to promote transformative change**
  - The educational quality standards should be designed with their implementation in mind. To this end, it is important that educators and other key stakeholders have a voice in defining the quality indicators and how they can be applied in education districts.

Proposed Structure for Vermont Education Quality Standards

The Commission sees Education Quality Standards as a critical building block for advancing transformation. Developing new education quality standards needs substantive work and broad input and engagement from stakeholders and experts. To do the job well will require effort and time. Education Quality Standards are intimately tied to many of the other policy recommendations included in this report. Decisions on these

recommendations and other related transformation efforts will need to be reflected in the final content of the Education Quality Standards.

The Policy Commission is strongly committed to advancing this task. The principles defined above for Education Quality Standards and the following list of key content for the standards provide important guidance.

Proposed EQS Content:

I. Statement of Purpose & Underlying Principles

This should address improving education quality and education equity for all learners. EQS is a format for establishing rules impacting quality and outcomes and for organizing policy to ensure its coherence and ability to positively advance transformation.

II. Indicators of Education Quality

Key factors for quantitative evaluation of education quality at district and school levels:

OUTCOMES – learner achievements and system results

- Desired outcomes for learners in the PK-12 public education system
- Measures and other observable forms of evidence used to demonstrate outcomes
- Target performance levels on measures for which there will be accountability

PRACTICES & OUTPUTS – key services and products

- List of key practices and outputs with the greatest impact on outcome results
- Measures and other forms of evidence used to calibrate practices/outputs
- Target performance levels on measures for which there will be accountability

INPUTS – key resources, structures, and policies

- List of key inputs with the greatest impact on outcome results (e.g. costs, technology)
- Measures used to calibrate inputs
- Target performance levels on measures for which there will be accountability

III. Revised Vermont Framework of Standards

- Declaration of VT Framework of Standards as basis for evaluating learner demonstration of proficiency
- Three stages of skill progression (see Learning Expectations Section of this report)
- State and local assessment programs

IV. Personalized Learning Plans and Graduation Requirements

- Content for personalized learning plans (H)
- Adopted state requirements for proficiency-based graduation (including demonstrated competence on select learning expectations articulated in the Framework, demonstrated competence in one area of learner interest, completion of one college-level course, and completion of an individual personal learning plan)
- Rules that ensure alignment of graduation requirement with college entry requirements (i.e. definition of college readiness standards)
- Rules that ensure effective district graduation policies

V. Multiple Pathways/Multiple Learning Styles – key rules to increase flexibility for how all learners can gain mastery of learning expectations (e.g. mentors, dual enrollment, distance learning)

VI. Transformative Teaching & Learning Practices – key rules to advance transformative teaching and learning practices in a global, information age, such as

- Interdisciplinary teacher teams work over time with a set cohort of learners in small learning communities
- Standards-based learning – common and rigorous learning expectations focus on key concepts and "big ideas" in a discipline
- Varied and multiple forms of learner assessment that continually support learning and document learner performance levels
- Proficiency-based grading, promotion, and graduation – i.e. learning continues until learner has attained proficiency
- In-depth inquiry and investigation through extended application projects
- Personalized learning opportunities – learners engaged in areas of personal interest and supported through varied and flexible learning options reflecting how they learn best
- Extended learning beyond school walls and schedules (e.g. internships, service learning, place-based learning in community and businesses, field experiences)
- Early college options that provide all high school students opportunities to earn college credits while still in high school
- Learning time/calendar support in-depth learning through flexible learning options

VII. Professional Development – rules to govern and coordinate educator professional development, statewide and regionally, to ensure educator support in applying transformed practices to better address learner needs.

VIII. Educator and Administrator Evaluation – rules on annual evaluation of teacher and administrator performance based on clear professional standards and management by objective criteria. Incentives for high performance and sanctions for underperformance should be specified.

IX. EQS for Continuous Improvement – rules specifying processes for EQS compliance and ongoing EQS application for continuous improvement (e.g. professional learning communities, action research, district/school 3- to 5-year strategic plans for transformation)

X. Incentives/Sanctions to Encourage EQS Compliance – rules specifying the sanctions and incentives for educational institutions successfully and unsuccessfully pursuing the EQS; shall include ranges from mild interventions to comprehensive interventions. Clarification of benchmarks for each type of intervention should be devised.

XI. Agent to Monitor Compliance – the EQS working group designated by the State Board should consider who would be the appropriate agent for monitoring and enforcing EQS. The current capacities of the DOE should be considered in this regard. The Policy Commission believes that accountability for EQS compliance rests with the State Board of Education. We believe that monitoring the EQS needs both a self-assessment component and a neutral third-party assessment. Who could offer this third-party assessment? Can it be done as a peer review process or is there a need for a professionally contracted third party to conduct quality audits? How should EQS technical assistance and support best be provided to districts/schools? Possible options could include designating the VT DOE, contracting a third party such as NEASC or another Vermont organization, or creating an Education Quality Consortium (consisting of diverse education stakeholders) as the agent to manage a statewide EQS program. Such a consortium approach could encourage full ownership of EQS by key stakeholders.

The proposed section II for indicators of education quality is the heart of an EQS system. It should define the quantitative framework for evaluating education quality for a district and for schools. This section defines the quantitative measures of inputs, outputs, and outcomes that are most critical to education quality and that the State Board must monitor tightly.

Possible examples of indicators:

- Achievement levels in 21st century skills
- College success
- Percentage of learners completing select practices (e.g. dual enrollment, work-based learning, community service projects, distance learning)
- Percentage of schools using small learning communities
- Cost per outcome

Sections IX-XI above define the quality assurance mechanisms – i.e. oversight entity, consequences of noncompliance, and interventions for continuous improvement. The remaining sections provide placeholders for key factors affecting education quality for which the State Board of Education should establish specific policy (e.g. personal learning plans, use of mentors, graduation requirements, early college options, use of small learning communities to engage learners and strengthen teacher/learner relationships). Building Education Quality Standards in this way ensures that they become an effective tool advancing transformation. The Policy Commission recommends that the State Board of Education appoint and charge an Education Quality Standards commission to fully develop the quality standards described in this outline and to recommend how they can be effectively implemented. To provide continuity and preserve momentum, the Policy Commission further recommends including several Policy Commission members on the Education Quality Standards Commission.

Dissemination and Implementation Strategy

For the Education Quality Standards to add real value, they must be owned and used by schools and educators, and they must be used as key points of accountability for districts and schools implementing transformative practices. It is critical that careful strategies be used in the dissemination and implementation of the EQS. The Policy Commission recommends:

1. The State Board of Education **appoints an Education Quality Standards Commission** and charges it with the task of drafting the standards reflective of these recommendations.

2. The Department of Education ensures that **regional roll-out meetings** are conducted to share the Education Quality Standards and explain how they will be used by schools and the state. These meetings should include initial DOE analysis of how schools measure up to the Education Quality Standards and areas of the standards that will be given attention through the education transformation work.

3. The Department of Education **amends data systems** and data reports as needed to ensure that data used in EQS monitoring are consistent and accessible.

4. Each school district completes a **baseline self-assessment** against the EQS. These self-assessments shall be repeated on a 3-year rotating cycle and be integrated into a continuous improvement process coordinated at the regional level, with schools mentoring other schools in the process.

5. **External monitoring** of schools with feedback against the Education Quality Standards is essential for EQS to have meaning. The State Board of Education should appoint an EQS agent to plan and coordinate this external monitoring function.

6. **Strong district/school coaching and technical assistance** are a key component of EQS implementation. It is a local responsibility to improve education quality and EQS should be designed and implemented to support district/school efforts to improve.

Recommended Policy Actions:

1. By March 2010, the State Board of Education shall appoint an **Educational Quality Standards Commission** composed of various stakeholder groups and at least one member of the Policy Commission to develop and propose a set of quality standards.

2. By December 2010, the State Board of Education shall complete a total review and **redrafting of Title 16** and the administrative rules to identify existing policy that should be eliminated and organize policy into a more coherent policy structure that is easily accessible and understandable to education districts and the general public. Statutory changes shall be approved by the legislature by May 2011.

3. By January 2011, the State Board of Education shall **adopt a set of Educational Quality Standards** for Vermont public education. These standards shall be broadly supported and align with the content and purposes of EQS described in this report.

4. By January 2011, the State Board shall propose and **submit amendments to 16 V.S.A. § 165** regarding standards of quality for public education, including clarification of the monitoring body as either VT DOE, NEASC, or a newly created Education Quality/Transformation Consortium.

5. By September 2012, public PK-12 schools shall begin a staggered 3-year cycle in which they implement "**education quality assessments**," guided by sound action research techniques, whereby teachers and administrators can continually collect data on actual teaching and learning practices being used in the education process of enrolled learners and meaningfully use the collected data as a tool for teachers and schools to continually develop more effective practice.

Section II:

Learning Expectations for a New Generation

Purpose:

To ensure that learning expectations, learning experiences, and assessments incorporate and emphasize the knowledge and skills essential for all PK-12 learners to be successful in college, their careers, and as citizens in a global and technological society.

There is a profound gap between the knowledge and skills most students learn in school and the knowledge and skills they need in typical 21st century communities and workplaces.

Partnership for 21st Century Skills

Rationale:

There is a profound gap between what today's learners need to be able to do in their futures and what is being taught and learned in public education.

Although Vermont's education system is one of the highest performing in the country, today's global forces are demanding new learner outcomes from public education that are not given emphasis in our existing system. There is a profound gap between what today's learners need to be able to do in their futures and what is being taught and learned in public education.

Traditional academics and a traditional curriculum, designed for past generations, are no longer enough to prepare even our highest-achieving learners for the demands they will face in the coming decades. Vermont's **new generation of learners needs an expanded set of knowledge and skills** to be successful in their futures. Today's learners must **be able to apply** this expanded set of knowledge and skills **to rapidly changing situations** at work, at home, in their communities, and in the broader world. Content mastery and recall are no longer enough. Learners need a deep understanding so they can synthesize knowledge across disciplines and apply it to meaningful and complex projects.

In addition to raising the bar for what must be learned, we also need to hold these high expectations for *all* learners. Our educational system must recognize, value, and develop the diverse talents and strengths of every learner. Inequity in education outcomes among different cohorts, once viewed as the norm, can no longer be tolerated.

Inequity in education outcomes among different cohorts, once viewed as the norm, can no longer be tolerated.

Learners who fail to master the knowledge and skills of a 21st century education are unlikely to earn middle-class incomes, find satisfying careers, or participate in our civic, democratic community. In the early part of the last century, people with a basic 8th grade education could lead full lives. By mid-century, a high school diploma became the ticket to the middle class. By the 1980s, college graduation yielded options for professional careers, while underperforming and average high school graduates were experiencing narrowed career options and declining wages. For the past several decades, the poverty gap between college graduates and those without postsecondary credentials has grown dramatically. In the 21st century, all learners must leave high school prepared to successfully pursue college or a postsecondary credential of some kind, whether a professional certificate, an associate's degree, a baccalaureate degree, or an advanced degree.

Commitment to the success of every learner is the strongest lever for transforming education systems. To attain equity in education outcomes, educators must become more highly skilled in assessing individual learner needs and progress and in personalizing learning opportunities for all learners to achieve.

Basis for Policy Recommendation:

To accomplish the stated purpose and to clarify our policy recommendations in this area, the Commission shares its thinking in four areas:

1. Adopt 21st century **learning expectations, with skill progression continuums,** through a revision of the Vermont Framework of Standards and Vital Results. These core learning expectations must be achieved by all learners. Individual learning expectations beyond the core are defined in personal learning plans.

2. Establish **state and local learner assessments** to accurately monitor and document individual learner progress toward achievement of learning expectations. These multiple and varied assessments should inform learners, families, and teachers where learners are on their skill progression and guide them in continued learning plans that best support personal learning styles, interests, and goals.

3. Establish **evidence-based grading, promotion, and graduation** requirements, so each learner must attain and demonstrate specified skill proficiency levels, regardless of age or grade level, before leaving a stage of learning, recognizing the flexibility of stages overlapping according to learner need.

4. Establish **three phases of a non-graded education structure,** wherein all learners progress at their own pace, regardless of age or grade level, until they achieve core learning expectations and personal learning expectations in a focused area of interest.

Adopt New Learning Expectations

Since the beginning of the 21st century, there has been considerable research on what knowledge and skills are required for success in future decades. An early model was SCANS in 1991. The 21st Century Partnership and enGauge are two more current examples. Whether this research was completed by educators, business and industry groups, public policy organizations, or higher education, there is great similarity in the findings. Several models of 21st century skills are included in Appendix G. Most of these efforts to define knowledge and skills needed by new generations of learners reflect some common expectations:

- Academic knowledge and skills must be fewer, higher, and deeper, so that learners develop an in-depth understanding of the big ideas and core concepts of a discipline. Recall of details and content is less valuable than acquiring core concepts that can be applied in diverse and novel situations.

- Cognitive development is as important as academic development. Habits of mind, such as critical thinking, creativity, ability to view ideas from a variety of perspectives, analysis of information to synthesize and generate new ideas, use of evidence and reasoning, and problem solving are essential features of this cognitive development. In such a rapidly changing world, the ability to think and learn in complex situations is essential.

- Social development is a critical learning expectation for current and future generations. The ability to communicate, to collaborate with others, to provide leadership, to demonstrate global awareness and multicultural understanding, to take responsibility for and to take action on civic and social issues, as well as flexibility and adaptability all have become essential to success.

- Expansion of "basic skills" beyond reading, writing, and math is called for. Today's learners must gain knowledge and skill in areas such as information and communication technologies, finance and economics, business and entrepreneurship, health, and information literacy.

Clearly most agree that education must redefine learning expectations and learning processes if we are to truly prepare today's and tomorrow's learners for their futures. Many states have already begun this important work. For example, Maine is working with the Reinventing Schools Coalition to redraft their state standards and establish skill progression continuums to replace their former grade level expectations.

Vermont must update its Framework of Standards to focus on deeper and more relevant learning and establish college readiness standards in partnership with higher education. We must identify the critical concepts and "big ideas" learners must achieve in the academic areas, cognitive development, social development, and the "new basic skills." Although Vermont's Vital Results and Framework of Standards is a strong foundation on which to build learning expectations important for 21st century success, the world has changed dramatically since its initial development in the early 1990s. The Commission proposes that the state of Vermont undertake a collective effort to adapt the existing framework to our evolved understanding of learning outcomes and the practices that may be used to support greater opportunities for all learners.

The newly revised Vermont Framework should define **core learning expectations** that all learners must achieve. It must focus on the **major concepts underlying the disciplines** and not on the content details. It should **emphasize interdisciplinary skills** and **knowledge application**. It should define **three stages of learning progression** for

each learning expectation. In this way, learning progression against the standards is tracked across the PK-12 spectrum. This makes all teachers aware of each student's overall learning progress through the years rather than having too narrow a focus on grade levels. Each learning progression stage would define a higher level of development along a natural skill progression from novice to proficient. Although individual learners will progress through the stages at their own pace, the exit level expectations for each stage will be drafted so that:

- The first stage (**novice**) defines learning outcomes expected at an introductory level where learners acquire basic knowledge and comprehension.

- The second stage (**intermediate**) defines learning outcomes expected of learners who have mastered introductory level skills and are ready to expand and apply their skills in predictable settings with ongoing guidance.

- The third stage (**proficient**) defines learning outcomes expected by graduation and aligns with college/career readiness demands. At this level, learners can perform complex applications, synthesize information to generate new ideas, and independently apply their skills to novel and complex settings.

For example, what might be the natural skill progression for **critical thinking**?

Stage	Expected Learner Performances
Novice	Ask questions; clarify meaning Explore with curiosity and open mind Suspend judgment Understand and categorize basic information
Intermediate	Identify core issues of situation View from multiple perspectives Distinguish between relevant and irrelevant information Reflect on own assumptions and thinking Distinguish between information and inference Draw and defend simple conclusions Identify biases Understand difference between reasoning and rationalizing
Proficient	Locate, analyze, and integrate information from sources Apply different cognitive strategies Apply system logic to identify significant elements of situation Rigorously question own conclusions Use breadth of evidence to both defend and refute conclusions Use creativity and humor to explore unseen elements of situation Analyze positive and negative implications of action

Certainly this is not a fully developed continuum for progression of critical thinking skills, but it does begin to illustrate the concept of using three skill development stages. Regardless of grade level or age, the revised framework would describe the progression of fundamental concepts learners follow to achieve proficiency over the years of their public education experience. For Vermont learners to develop the rigorous skills the 21st century

demands, they must begin development from the start of their public education and continue development across the years. To have skilled critical thinkers at graduation, it is important to know how this skill starts to develop even in kindergarten. This approach provides greater coherence of learning progression across the years and puts the focus on development of fundamental concepts rather than on course or grade level completion.

It is time for Vermont education to truly implement the next generation of standards-based education practices. The next generation of standards-based education must move beyond standardization of learning (i.e. grade level expectations, discipline-specific standards, state testing of only a narrow set of academic performance). Vermont needs to redefine higher and deeper interdisciplinary learning expectations critical for success in college, careers, and citizenship in 21st century.

Amending the Vermont Framework of Standards must engage the public and key education stakeholders, yet it must occur quickly. Much work has already been done nationally and in other states (see documents referenced for Colorado, Maine, and Texas). Vermont should draw on expert guidance to advance the process quickly and effectively. To inform the revision of the Vermont Framework, the Commissioner should **secure consultation and project leadership** from an external entity with strong expertise and experience in reviewing and redefining state PK-12 standards for new generations of learners. The contracted entity should work with a small group or commission. This group should provide sufficient opportunities for all types of stakeholders to weigh in. For continuity purposes, several members from the Policy Commission should be asked to participate.

State and Local Learning Assessments

Assessments must mirror the defined learning expectations, must highlight what learners can DO with acquired knowledge, and must support the learning process itself.

To truly implement the next generation of standards-based education, it is essential that we broaden our approach to learner assessment. Well-designed assessments help educators understand the learning expectations in enough depth to align curriculum and instruction. Well-designed assessments also help learners to better understand the learning expectations, to monitor their own progress toward attaining them, and to refine their own work and performance over time. Learners must be given the opportunity to apply their knowledge and skills on extended performance tasks and projects. This will provide the best feedback on learning and offer the best opportunity

to demonstrate true proficiency. Rather than rely on high-stakes testing, learners need multiple and varied **performance assessments over time**. The assessment structure must reflect the three stages of development in a non-graded education structure.

Proficiency-based Grading, Promotion, and Graduation Requirements

Vermont adopted the Common Core in the early 1990s and the Vermont Framework of Standards in 1996. Schools have been working to implement standards-based education practices for nearly 20 years. The quality of implementation of standards-based education practices in Vermont varies from school to school and even from teacher to teacher. Some have simply complied with state assessment requirements, others have done curriculum mapping against the standards, others have made significant adjustments to their curriculum and instruction, and others have strengthened their local comprehensive assessment efforts.

Vermont is ready to begin a next generation of commitment to standards-based education. A key attribute of this next stage of development is ensuring that each learner will continually be supported with flexible and personalized learning opportunities to attain the standards. In this model, learning is the constant, and time, curriculum, and instruction are variables used to ensure that each learner can achieve the standards. **Learning continues until the learner has achieved the learning expectations.** Each learner demonstrates full proficiency against the learning expectations and his/her personal learning plan. Many states are moving forward with evidence-based grading and graduation and have established policies to drive proficiency-based education practices.

Three Non-graded Phases of Differentiated Learning Opportunities

Our current public education system groups learners primarily by age and grade level. Despite efforts by teachers to personalize learning, the system is designed using assumptions that all students learn largely in the same way and at the same pace. Some learners successfully meet annual grade level expectations, others are left behind, and still others who are ready to advance become bored and disinterested as they wait for the allotted time in a unit or grade to expire. One of the fundamental premises of education transformation is that all learners can achieve high expectations when provided personalized learning opportunities and supported to continue learning until they achieve proficiency. Toward this end, the Policy Commission recommends replacing the traditional grade-level grouping of learners by age with multi-age learning communities that support

more fluid, yet still age appropriate, learning structures. The Commission recommends three phases of grouping:

Phase	Description
Foundational	This phase would be for the youngest learners. Most learners in this phase would be ages 5 to 8. During this phase, learners are acquiring basic knowledge and skills. Learning outcomes are more fixed and common, although pedagogy would adjust to best serve the learning styles and interests of the learners. The structures of learning opportunities would be dependent on the teacher. Learners would blend in different groupings for different learning activities as identified by the teacher as best supporting learning for each student according to numerous variables, including interests, social needs, academic needs, and resources. Each learner would have a personal learning plan drafted by the teacher with parental input.
Exploratory	This phase would predominantly serve learners ages 9 to 13. Although learning outcomes would still be rather fixed and common, the range of learning opportunities would be much broader as learners begin to explore a variety of areas of interest identified by the learner or by the teacher. Learners would blend in different groupings for different learning activities as identified by the teacher and by the learner. Each learner would have a personal learning plan drafted through equal input from learner, parent, and teacher. Before exiting the exploratory phase, each learner would have identified an area of strong interest in which they would complete focused inquiry.
Focused Inquiry	This phase would predominantly serve learners ages 14 to 18. This phase addresses the deepest learning and intensive applications. Learning outcomes would include some common goals but would largely be more personalized, with learners working in depth in a select area of interest. In this phase, the teacher becomes more of a facilitator of learning opportunities helping learners identify, plan, and implement a learning plan responsive to their needs, interests, and goals. Learning activities would vary over time and among students – some attending traditional courses, others participating in early college options, others doing intensive study projects via substantive investigations, apprenticeships, community service, etc.

In a transformed education system, learners would be members of small learning communities made up of a small interdisciplinary group of teachers working with a group of learners with diverse skill levels and of mixed ages. This small learning community would control its own learning schedules and how it continually reorganized itself to best support learners to achieve. There would be opportunities for working collectively on substantive application projects, individual tutoring and support, interdisciplinary learning, discipline-specific knowledge and skill building, work with mentors and other community-based experiences, and other learning structures as

appropriate and as yet unimagined. Time is the variable and learning is the constant. Increased differentiation does not mean tracking or social promotion. On the contrary, learning continues until full competency is attained. Each learner follows the learning path that best supports success. The time required and range of learning activities can vary dramatically among learners. Failure is not an option. Mediocrity is not an option. The old grading paradigm of the "bell-shaped curve" is no longer acceptable – each learner must perform at a high level and the learning process adapts to ensure all succeed. Citizenship, college, career, and general life demands in the 21st century require rigorous competencies. Our public education system must take responsibility for making sure all are prepared. This commitment to equity in educational outcomes is the essence of the next generation of standards-based education.

Learning structures must be fluid and flexible.

Toward this end, the commission recommends that **Vermont move from a grade-level structure to an education system where learners work within more diverse and multi-age learning communities.** This would increase the focus on personalization of learning and raise the focus on where individual learners are in their progression toward proficiency, because this would not be superficially answered by an assigned grade level. Learners, parents, and teachers would know where a learner is in his/her progression based on demonstration – regardless if the learner is age 9 or 15. The design of appropriate learning opportunities would become more based on how to support the learner to reach the next stage of skill development – not on how to cover set curriculum material for a certain grade level or course.

As learners advance in age and in their learning progressions, there would be increasing flexibility and opportunity to explore and apply their learning in more focused areas of interest. Learners could progress through the stages of learning progression at their own pace and sequence, throughout the three phases of learning opportunities. All learners are expected and are supported to **attain a core set of common learning standards as outlined in the Vermont Framework**. In addition, each learner is expected to **attain unique knowledge and skills in at least one area of personal interest** (e.g. music, engineering, science, international studies) and is supported in his/her efforts.

Although these developmental stages sound linear, it is important to note that learners will take unique learning paths to attain the proficiencies in their own way and on their own schedules. To get a more personal understanding of how learners can experience this non-graded education structure, see Appendix I to read "A Day in the Life" for two learners.

Recommended Policy Actions:

1. By March 2010, the State Board of Education shall appoint a **Learning Expectations Commission**, including at least one member of the Policy Commission, to develop 21st century learning expectations and revise the Vermont Framework of Standards.

2. By January, 2011, the State Board of Education shall adopt an **amended Vermont Framework of Standards**. This newly adopted Vermont Framework shall reflect the concepts described in this report.

3. By July 2011, the State Board of Education shall adopt **statewide proficiency-based graduation requirements**. Such graduation requirements will reflect the breadth of skill areas defined in the revised Vermont Framework and align with college entry requirements.

4. By July 2012, the Commissioner of Education shall provide a bank of **benchmark performance assessments** and scoring guides for possible use by school districts. This resource will include performance assessments at each of the three stages of learning progression. It will emphasize performance assessments focused on skill sets not currently assessed by the New England Comprehensive Assessment Program (NECAP).

5. By July 2012, each district/school will be in transition from grade-level grouping of learners to **multi-age small learning communities** for the purpose of coordinating differentiated learning opportunities. Full implementation shall be completed by 2015.

6. By July 2012, each PK-12 learner will have an approved **personal learning plan**, as required by the Education Quality Standards.

Recommended Policy Actions - continued

7. By July 2012, every education district providing grade 9-12 education opportunities shall adopt **evidence-based graduation requirements** that incorporate state graduation requirements. These district graduation requirements will be the basis for granting diplomas beginning with the graduating class of 2016. Evidence for demonstration of proficiency against the graduation requirements shall involve multiple and varied measures of performance, reflect the Vermont Framework of Standards, incorporate completion of personal learning plans, and may include such measures as performance on state assessments (not more than 10% of weighted factors), performance on school- and classroom-based assessments, portfolios, extended project artifacts and exhibitions, third-party assessments, course completion, and course grades.

8. By December 2012, every education district in Vermont shall adopt and implement an **evidence-based grading and promotion policy**. Such policy, at a minimum, shall

    a. Require proficiency demonstration.
    b. Encourage shared accountability among educators for learner performance across the curriculum.
    c. Establish or enhance a standards-based report card format.
    d. Link assessments and scoring guides to grading and increase reliability of grades awarded by different teachers assessing common learning expectations.
    e. Describe how learners will be identified as not yet meeting learning expectations and how they will be offered additional supports to succeed, including such supports as literacy services, personalized learning options, and personalized advisory relationships.

9. By July 2013, each district will determine and establish **policy for assessing learner proficiency against the standards**. Such policy will address:
    a. The selection of priority academic, cognitive, social, and "new basic skills" learning expectations from the Vermont Framework and other comparable standards that the district will use as basis for designing the district's local assessment program.
    b. The identification and development of school-wide and classroom-based assessments. Each district's assessment program must ensure each learner has the opportunity to demonstrate through multiple and varied evidence their current performance level on the three skill development stages.
    c. How NECAP, school-wide, and classroom-based assessments will be weighted and used in assessing learners' proficiency overall.
    d. A mechanism by which performance levels for individual learners will be tracked against the selected learning expectations.

    Finalized local policy shall be submitted to Commissioner no later than December 31, 2013.

Section III:

PK-16 Partnerships

Purpose:

To improve student success across the continuum of PK-16 education, with particular focus on improving postsecondary aspiration, continuation, and completion rates for Vermonters by better aligning expectations for success and ensuring access to high-quality programs and services across the full spectrum of opportunities, PK-16.

College begins in kindergarten.

The Education Trust

Rationale:

One vision of public education is that it should be the "great equalizer" in a democratic society and that high-quality public education is essential to ensuring the democratic ideal of equal opportunity. Some argue that we, as a society, have largely failed in this arena. Performance gaps between socioeconomic and racial/ethnic groups remain essentially what they were decades ago. Students who are poor are much less likely to succeed all along the PK-16 continuum than their wealthier counterparts. Even high-achieving poor students are less likely to go to college than lower-achieving middle-class students. In Vermont, low-income students are less likely than higher-income students to enter kindergarten ready to learn, to graduate from high school, and to continue on to and succeed in college.

Most people would agree that every citizen needs a high school diploma. The individual and social benefits of a college degree are well documented, including increased income and tax revenues, decreased reliance on government services, increased civic engagement and voting rates, improved overall health, decreased crime rates, and greatly improved outlook for children. Today, the evidence is overwhelming that the public policy goal should be that every citizen acquires a postsecondary credential of some kind, whether a professional certificate, an associate's degree, a baccalaureate degree or an advanced degree. Many state-level planning documents in Vermont have recommended raising postsecondary aspiration, continuation, and completion rates. Indeed, few things are more important to the economic, social, and intellectual well-being of Vermonters and Vermont than educational attainment. The question is: what would it look like and what would it cost if we truly served *all* students, and raised the performance bar across the continuum?

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Components of a PK-16 System

Vermont has many local K-16 partnerships but currently no formal state-level PK-16 partnership. State-level PK-16 partnerships typically focus on public policy issues, challenges that cannot be solved by a single entity, and key transition points along the PK-16 continuum that can have dramatic effects on student success. Many states do have such partnerships, and Vermont once had an ad hoc version through the Vermont Public

Education Partnership (VPEP), which was created with leadership from the CEOs of the Vermont State Colleges, the University of Vermont, and the Department of Education. VPEP functioned from 1999 to 2004 with four public policy priorities: educator quality, addressing the shortage of licensed special educators, creating a statewide dual enrollment policy, and coordinating and expanding distance learning opportunities.

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Local PK-16 partnerships typically focus on the needs of particular schools or districts, such as bringing together higher education faculty, pre-service teachers, and in-service teachers to analyze gaps in K-12 student performance in a specific area and to develop pedagogical strategies to address those gaps. The theory is that only a **systemic** approach focused on student success can result in increased educational attainment, especially for low-income and underserved populations and those unlikely to pursue postsecondary education (see Callan, 2006). All elements of the system must be of high quality and well integrated, including:

- statewide access to high-quality pre-K education;
- universal success in elementary school, particularly related to basic skills acquisition in literacy and numeracy;
- early outreach to students and families about the value of college, what it takes to be "college ready," and how to finance it;
- alignment of secondary and postsecondary curricula;
- blurring the boundaries between secondary and postsecondary education to create flexible learning environments, particularly through expanded opportunities for the *full range* of high school students to take college courses through dual enrollment or early college programs;
- universal success in high school completion as measured by the cohort-based high school graduation rate (the Vermont Legislature has set this as a goal by 2020);
- teacher preparation programs and ongoing professional development that continuously improves educators' capacity to meet the diverse needs of all students, particularly low-income and underserved populations;
- adequate postsecondary financial aid to ensure affordability;
- increased postsecondary aspiration, continuation, and completion rates;
- flexible options for adults to continue or begin their college education;
- a K-16 longitudinal data system that identifies what works and what doesn't, especially for target populations, and is aimed at improved student outcomes across the continuum.

Establishing a comprehensive PK-16 state-level agenda is clearly an enormous task. One way to focus an initial effort is to examine the K-16 pipeline (see *Double the Numbers: Kentucky's Plan to Increase College Graduates*. 2007). Vermont's "leak" is clearly the

transition from high school graduation to college entrance. Out of every 100 9th graders in Vermont (2004 data):

- 85% complete high school (2006, Vermont Department of Education).
- 76% of high school graduates aspire to continue their education beyond high school within 1 year of graduation (2008, VSAC).
- 44% of all 19-year-olds are enrolled in college (2006, Postsecondary Opportunity).
- 42% of Vermonters over the age of 25 have an associate's, bachelor's, or graduate degree (2007, U.S. Census Bureau's American Community Survey).

Another way to focus efforts is to examine who is left behind – that is, who is least likely to succeed at all points across the continuum (see Texas' *Systemic Strategies for Closing the Gaps by 2015.* 2009). As stated earlier, such an effort would clearly focus on low-income students. Combining these two approaches, key policy areas to address include:

- gaps in programs and services for low-income students, PK-12;
- educator preparation and professional development redesign to meet the needs of all students, particularly those underserved or disengaged for any reason;
- early outreach and early promise of access to and affordability of postsecondary opportunities;
- college readiness standards;
- statewide dual enrollment/early college options.

Gaps in Programs and Services for Low-Income Students

As is the case across the country, Vermont's low-income students are much less likely to succeed in school than are their wealthier counterparts. These selected data points from Vermont's 2008 NECAP assessment illustrate this point (and are representative of the comprehensive results of state-level assessments), comparing the percentage of economically disadvantaged students demonstrating proficiency vs. all other students demonstrating proficiency:

- secondary science assessment: 13% vs. 30%
- secondary reading assessment: 26% vs. 47%
- grades 3 to 8 reading assessment: 54% vs. 79%

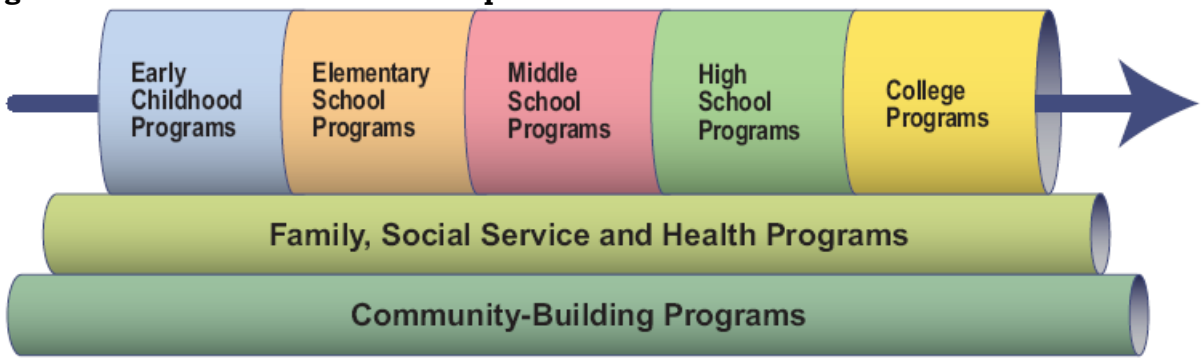
Of course, state-level assessments are just one means of measuring success. Low-income students are less likely than higher-income students to enter kindergarten ready to learn, to graduate from high school, and to continue on to and succeed in college. More specifically, low-income students enter kindergarten with a substantially smaller vocabulary than wealthier counterparts. Low-income students are likely to suffer larger learning losses over the summer and other breaks, starting behind and getting further behind. Low-income students are less likely to aspire to college and often determine that they will not go

to college as early as the sixth grade. Examples of disparities abound, and the question remains: What would it look like and what would it cost if we truly served all students, and raised the performance bar, especially for low-income students, across the PK-16 continuum?

> What would it look like and what would it cost
> if we truly served *all* students, and raised the performance bar,
> especially for low-income students, across the continuum?

There are successful models across the country. The Harlem Children's Zone began in 1970 with the attitude of "whatever it takes" when it came to helping disadvantaged children succeed. The program includes comprehensive, wrap-around services across the PK-16 continuum that work in partnership with families and local neighborhoods, including early childhood programs; after-school and summer programs for elementary, middle, and high school students; and ongoing programs for their students who continue on to college (see www.hcz.org). The Harlem Children's Zone Pipeline (continuum of services) provides children and families with a seamless series of free, coordinated, best-practice programs as illustrated by this graphic:

Figure 1: Harlem Children's Zone Pipeline



The results achieved by the program soundly beat the odds. Recently 100% of their early childhood program participants were deemed ready for kindergarten, 81% of the parents increased frequency of reading to their children, and 100% of third-graders were at or above grade level on state assessments.

Better serving low-income students is a matter of moral, economic, and social urgency. According to a public policy white paper issued by the Harlem Children's Zone: "In the United States today, more than 13 million children—nearly one in five—live in poverty. We know that these children face a future in which they are far less likely than other children to get a good education or adequate health care and more likely to enter

prison. The odds are that they will not, by a long shot, live up to their full potential. But we must understand this: Their future is the future of America."

In Vermont, more than 11% of children live in poverty, with other key indicators of child well-being displayed below, as reported by Kids Count Vermont:

Key Indicators of Child Well-Being	Vermont		United States	
	Number	Percent	Number	Percent
Population under age 18 below poverty	16,595	11.4	11,746,858	16.6
Population under age 18 below 50% of poverty	6,032	4.2	5,274,343	7.4
Population under age 18 below 200% of poverty	47,271	32.5	26,806,452	37.8

There are schools in Vermont that are beating the odds – that is, schools whose reading and mathematics scores on state assessments defy expectations and exceed those of other schools with similar demographics. The recently completed Vermont Effective Schools Study identified characteristics associated with student, particularly low-income student, success (see Vermont Department of Education. *Roots of Success: Effective Practices in Vermont Schools*. 2009). These included: high expectations, continuous improvement, leadership, use of data, professional teaching culture, student supports, school climate, and family engagement. These characteristics were found to be essential to ensuring that all children, regardless of background or socioeconomic status, reach their full potential.

Especially given demographic trends in Vermont, it will be imperative to develop strategies to support every Vermonter reaching her or his full potential. After Maine, Vermont is the "grayest" state, and according to population forecasts, the number of Vermonters over the age of 65 will double by 2030. At the same time, the working-age population (those between 21 and 64) will increase slightly until 2015 and then decline. Today there are five working-age Vermonters for every individual over the age of 65. By 2030, it is estimated that there will be only two working-age Vermonters for each senior citizen. Their future is indeed our future.

Educator Preparation and Professional Development

The Educator Quality section of this report describes in detail the policy changes necessary to transform K-12 education in Vermont. The recommendations put forth in that section clearly require a PK-16 partnership approach, both at the local and state levels.

Early Outreach and Early "Promise"

Many states have made "college for all" an explicit public policy direction, including Kentucky, Maine, North Carolina, and Texas. Based on the clear individual and social benefits of postsecondary credentials, the assumption is that everyone aims for college unless there's a good reason not to – that is, that the message to virtually all students is: "We believe you can go to college, and we will prepare you to succeed if you choose to go."

Based on the clear individual and social benefits of postsecondary credentials, the assumption is that everyone aims for college unless there's a good reason not to – that is, that the message to virtually all students is: "We believe you can go to college, and we will prepare you to succeed if you choose to go."

The Maine Compact for Higher Education went so far as to assert: "Completing a college degree is a fundamental right and *responsibility* of all Maine people" (emphasis added; see Harney, *Greater Expectations.* 2004). This requires a shift in thinking from "not everyone needs to go to college" to creating shared postsecondary aspirations and high expectations for all students, particularly those unlikely to aspire to college themselves.

In Vermont, VSAC outreach services provide information to students and families about how to prepare and pay for college. Federally-funded programs, such as Talent Search and Gear-Up, work in partnership with middle and high schools and postsecondary institutions to identify low-income students – who would often be the first in their family to attend college – and offer a variety of services aimed at increasing postsecondary aspiration, continuation, and completion rates. Colleges offer complementary programs, such as Upward Bound or summer bridge experiences, aimed at students who are academically and socially under-prepared for college.

Many states and local communities go further by offering early commitment or early "promise" models that guarantee college admission and financial support for low-income students if those students in turn commit to and complete a series of requirements, typically including success in a college-bound secondary curriculum and "good citizenship." Pathways to College, an alliance of national organizations committed to advancing college access and success for underserved populations, identifies three basic characteristics of effective early commitment programs:

1. the programs make a guarantee of financial aid;
2. they designate aid only for economically disadvantaged students; and
3. they identify and enroll students in elementary, middle, or early high school for the early commitment program, well before the students graduate from high school.

Effective state models include Indiana, Oklahoma, California, Washington, and Wisconsin. (See Blanco, *State and Community Based Promise Programs*. 2009; and Harnisch, *State Early Commitment Programs*. 2009.)

According to *State and Community-Based Promise Programs: Early Commitments of Financial Aid for College*, a recent publication of Pathways to College, "The most notable growth in early commitment financial aid programs has occurred among community-based initiatives…These programs are typically limited to a geographic area, normally a single city or neighboring cities that form a regional group, with the basis of the coalition formed around economic and workforce development goals." Examples of these community-based programs include the Kalamazoo Promise, the Pittsburgh Promise, and the El Dorado Promise. In all cases, strong K-16 collaboration is a critical component of these early promise programs.

College Readiness Standards (embedded in revised Vermont Framework)

Vermont receives failing grades on national report cards measuring the extent to which secondary and postsecondary curricula are aligned.

Vermont receives failing grades on national report cards measuring the extent to which secondary and postsecondary curricula are aligned. *Closing the Expectations Gaps 2009*, an analysis of state education systems conducted by Achieve, Inc., ranked Vermont as the only state in the country to have made no progress in five key areas related to improving college readiness:

- aligning high school standards with the expectations of college and the workplace;
- aligning high school graduation requirements with college and career-ready expectations;
- developing college and career-ready assessment systems;
- developing PK-20 longitudinal data systems; and
- developing accountability and reporting systems that promote college and career readiness.

Many states have made significant progress in these areas. States that have implemented college readiness standards for high school graduation include Georgia, Indiana, Minnesota, North Carolina, Ohio, and Texas. States that have implemented a statewide college readiness assessment, often administered in the junior year of high school, include California, Colorado, Georgia, and Kentucky. The National Governor's Association is undertaking a nationwide effort to articulate college readiness standards, and currently has drafts for writing and mathematics out for public review (see Core Standards. 2009).

It should be noted that Vermont is about to submit an application for a federal grant to implement a K-16 longitudinal data system. In the other four areas listed above, Vermont has a long way to go.

Statewide Dual Enrollment/Early College Options

Dual enrollment programs allow high school students to enroll in college-level course work and earn college credit while still in high school. Ideally, courses result in dual credit: the college course replaces a high school course, and the student gets credit for both. Dual enrollment programs have the potential to result in substantial benefits for high school students and their families, particularly for those students who may not appear college bound.

The benefits of dual enrollment are well-documented and include:

- enriched curricular options;
- increased rigor, particularly in the senior year;
- shortened time (and cost) to college degree;
- smoothed transition from high school exit to college entrance;
- increased postsecondary aspirations, especially for first-generation and low-income students, and those who are disengaged from high school;
- increased postsecondary continuation and completion rates overall.

Dual enrollment is a proven state-level strategy for increasing postsecondary continuation rates. In Florida, where participation among public institutions is mandatory, dual enrollment students enroll in college at rates significantly higher than high school students who do not take one or more college courses. Based on another large-scale study, the same is true for students in CUNY's College Now dual enrollment program: students who participate continue on to college at rates higher than the rate for all students attending public high schools in New York City. More than 20 states have comprehensive dual enrollment polices. Additionally, a growing number of partnerships between high

schools and postsecondary institutions are implementing some version of the early college model, whereby a student can earn a high school diploma and significant amounts of college credits – up to an associate's degree – simultaneously, which can reduce the time (and costs) associated with the degree by up to 1 year. Early college models typically target students who would not otherwise consider going to college. *The philosophy is that challenge, not remediation, will make the difference, expanding access to success for a population for whom society has low postsecondary aspirations.* According to a recent report from Jobs for the Future, early college students fare better than national averages in high school graduation rates and college-going rates. (See Hoffman and Robins, *Head Start on College and High School/College Dual Enrollment Programs*. 2005.)

There is no comprehensive statewide dual enrollment policy in Vermont. Generally, the extent to which dual enrollment opportunities are made available to high school students depends on local partnerships between high schools and colleges, and particularly the existence of an advocate in the high school. Opportunities for students to take specific single courses or a full alternative to the senior year are not available statewide. Also, there is wide variability in how Vermont high schools treat college credit. A high school student taking a college-level English Composition course might receive credit for a required English course for high school graduation, credit for an elective for high school graduation, or no credit at all toward high school graduation, depending on the high school.

Ongoing funding for the dual enrollment program is uncertain, and current funding levels are insufficient given the growth of the program since its inception. The Vermont State Colleges recently had to reduce the number of tuition-free college courses available to high school students from two to one because of the expanded interest in the program. Nearly 70% of the funding received from the State on July 1 for this academic year has been expended for the fall semester, and registrations have not yet received for spring or summer 2010. A comprehensive statewide dual enrollment policy must be based on a set of guiding principals agreed to by key constituents. Jobs for the Future, an organization dedicated to expanding educational and economic opportunity, recommends these principles:

- The mission of dual enrollment is to serve a wide range of students, particularly those from groups who attend college at disproportionately low rates.

- All of the state's public high schools provide equal access to dual enrollment opportunities.

- College credit substitutes for high school credit, allowing students to accelerate in the specific subjects in which they demonstrate strength.

- The secondary and postsecondary sectors share responsibility for dual enrollment student success.

- Funding mechanisms are based on the principle of no cost to students and no financial harm to secondary and postsecondary partners.

- The state collects individual student and statewide data in order to assess the program's impact and help design improvements.

- The policy is part of a statewide agenda to increase the rigor of the high school diploma and is guided by a K-16 governance structure. (See Hoffman et al., *On Ramp to College*. 2008.)

Recommended Policy Actions:

State-Level PK-16 Partnerships

1. By March 2010, establish **a state-level PK-16 partnership**, modeled on successful partnerships in other states. Composition should include executive-level representation from the Vermont State Colleges, the University of Vermont, AVIC (Association of Vermont Independent Colleges), the Department of Education, and VSAC; representatives from the field on behalf of superintendents, principals, teachers, and school boards; and the chairs of the House and Senate Education Committees. Ideally, the partnership would have strong gubernatorial support.

2. By June 2010, the partnership will establish specific and ambitious **state-level educational attainment targets and strategies to achieve the targets**; sample targets include:
   – all high school graduates complete at least one college course while still in high school;
   – Vermont's high school graduation rate increases to 100% by 2020;
   – Vermont's postsecondary aspiration rate increases to 90% by 2020;
   – Vermont's postsecondary continuation rates increases to 85% by 2020;
   – performance gaps between socioeconomic groups are eliminated by 2020;
   – Vermont reaches the goal of 60% of the population having at least an associate's degree by 2025.

3. By June 2010, the partnership will convene experts to develop **policy and practice recommendations to eliminate performance gaps based on socioeconomic status**. The partnership will develop specific strategies for filling the gaps in programs and services for low-income students, PK-12, taking into account related work underway, such as the recent Effective Schools Study and that of the Vermont Childhood Poverty Council.

4. By September 2010, the partnership will develop policy recommendations to implement **local and state-level early commitment models** that will guarantee college admission and financial support for low-income students if those students in turn commit to and complete a series of requirements, typically including success in a college-bound secondary curriculum and "good citizenship."

Recommended Policy Actions - continued

State-Level College Readiness Standards (embed in VT Framework)

5. By January 2011, a commission of secondary and postsecondary education will develop **state-level standards for college readiness** as part of the Vermont Framework of Standards, aligned with existing state-level K-12 assessments and other assessments under development, such as those for career/technical programs.

Statewide Dual Enrollment

6. By April 2010, establish a dedicated, **sustainable, and sufficient state funding** mechanism for high school students to enroll in college courses while still in high school, using the VSC Dual Enrollment Program as the basic model, including existing partnerships that provide access to postsecondary institutions outside the VSC. The estimated *annual* state contribution for a comprehensive, statewide dual enrollment program, as framed by the policy components described here, is $500,000.

7. By June 2010, **expand access to VAST beyond VTC and beyond science/technology** to targeted programs at other postsecondary institutions to provide early college options and a full-year alternative to the senior year for higher-achieving students statewide, allowing students the opportunity to work toward a high school diploma and associate's degree simultaneously.

8. By June 2010, **require high schools to accept college credit** acquired through dual enrollment at regionally accredited postsecondary institutions to meet high school graduation requirements.

9. By December 2010, establish **web-based dual enrollment** opportunities to expand access.

Section IV:

Educator Quality

Purpose:

To increase the capacity of Vermont educators to use 21st century educational practices that increase student achievement

The teaching profession must look very different in 2030 if all students are going to meet the demands of our global economy and our ever-evolving democratic way of life.

Teachers of 2030 by Center for Teaching Quality, 2009

Rationale:

The practices of education across our nation and the world are in a process of fundamental transformation. Our global and technological society demands new and higher-level knowledge and skills in college, careers, and citizenship. In this "flat world," success is achieved as a result of continuous learning, sustainable teamwork, and flexible adaptation. (Carroll, *Teaching for the Future*. 2007)

In the 21st century, learners need educational opportunities that advance these practices. The majority of Vermont's educators were trained in the pedagogy used for many decades to educate an industrialized workforce. With a reliance on practices that were based on production-based economics, externally based behaviorist principles, and hierarchical management, teachers were successful using "stand and deliver" models with clearly defined content, which prepared learners for specific, long-term careers. In contrast, today's teachers must be able to meld deep content knowledge with lifelong learning skills, such as collaborative teaming, creative problem solving, analysis and synthesis, and communication, in preparation for a multitude of careers, many of which are unimaginable to us in the year 2009. Today's learners need teachers who know how to create a learning culture.

> *"Over the next decade the foundations of our factory-era schools will be shattered, clearing the way for genuine learning organizations to appear in their place."* Carroll, p. 46

Education in the world's highest-performing nations has benefited from more than 20 years of significant financial investment in educational reform. Fortunately, the characteristics of high-performing educational systems are well understood, leaving little to speculation as Vermont moves from policy-level change through implementation as it transforms the PK-16 educational system.

Vermont's educators will need different preparation in order to work within roles that differ significantly from the educator roles of today. Even such widely accepted practices as the school calendar and school day must change as we look at education in the 21st century. Clearly the profession will need educators with a commitment to different working conditions.

Basis for Policy Recommendation:

To accomplish the stated purpose and to clarify our policy recommendations, the Commission will focus on five components, which are widely acknowledged as critical for transforming systems that depend on and are responsible for educator quality:

1. **Educator preparation** programs designed around 21st century principles that provide on-site training opportunities in Vermont educational settings that exemplify 21st century practices.

2. **Educator induction and mentoring** programs that ensure the retention and development of effective beginning teachers.

3. **A career ladder and tiered licensing system** that are proficiency based and establish performance criteria for a range of professional practices.

4. **Ongoing, embedded professional development** that ensures that educators remain both flexible and effective in their implementation of best practices.

5. **Educational leaders** with sufficient knowledge of curriculum development, supervision, and evaluation and pedagogy to ensure educators are working in transformational ways.

Educator Preparation Programs Designed on 21st Century Principles

> *"The single most important school influence on student learning is the quality of its teachers."*
> VT Commission on Educator Quality, 2003

Educators in the 21st century need more than ever to demonstrate deep content knowledge in order to integrate thinking and doing. In a thinking world, where facts and information are but a mouse click away, it is the deeper knowledge of concepts, theories, and applications that will allow learners to make new discoveries and find new solutions.

Educating in the new millennium requires our educators to use the same skills that are required of graduates – collaborative teaming among professionals with demonstrable flexibility in achieving outcomes. Educators in the 21st century must be trained for their new roles as facilitators and coaches, *and* they must meet high standards for content knowledge that require deep understanding within their field. Formal educator preparation programs must "link theory and practice, …create discourse around problems of practice, [be] content-based and student-centered and engage teachers in analysis of teaching." (Darling-Hammond, p. 29.) Yet most educator preparation programs continue to focus on the methods required for teaching in individual classrooms, emphasizing prescriptive models and standards that can be measured by narrowly focused tests.

Transforming educator preparation does not necessitate a reinvention of the wheel; the findings of numerous researchers may be applied. Studies of effective educator preparatory programs have consistently identified four critical variables:

1. Recruitment practices draw top-level, competent learners into professional educator preparation programs.

2. Practical learning opportunities in 21st century educational settings offer substantive clinical experience.

3. Educator preparation programs reflect the complexity of the profession in order to reduce the attrition that too frequently occurs in the fifth or sixth year.

4. Educator preparation programs emphasize the moral, political, and social imperatives within the profession so aspiring educators can adapt to public educational environments.

Vermont's Standards and Principles have served us well in a decade of standardization of both curriculum and assessment. In response to national efforts to improve educational quality through the federally mandated No Child Left Behind, many Vermont learners have performed well on the New England Common Assessment Program (NECAP) and national assessments such as the National Assessment of Educational Progress (NAEP). However, a narrowly defined curriculum that is modified on the basis of annual achievement results on pencil and paper tests cannot prepare its learners to act creatively and flexibly while working with a team of problem-solvers or innovators. Standardized educational practices cannot adequately adjust for different learning styles and life experiences, and prescriptive methodologies cannot produce the wide range of approaches to higher-order thinking and collaboration in virtual environments. Educational practices must change, and just as our graduates must perform differently than has previously been expected, so too must their educators.

Educator Induction and Mentoring Programs

> *"We must have a plan by which [educators] can succeed where previous generations have failed."*
> Rotherham and Willinghane, p. 9

Given the very complex environments in which our educators work, it is typically not until the fifth or sixth year in the profession that most function beyond a novice level of competency.

Unfortunately, this matches the time frame in which the profession loses many of its teachers to attrition. New teachers leave the profession in alarming numbers, often because of the gap between preparation and practice. For more than a decade, various commissions have focused on the urgency of educator recruitment. However, it has become clear that induction and mentoring may offer a better solution to losing educators. Data from the *Schools and Staffing Survey* from the National Center for Educational Statistics show that since 1994 the number of people entering the profession has leveled off while the attrition rate is dramatically rising. "The young people we are counting on to teach for the future are leaving our obsolete schools at an alarming rate." (National Commission on Teaching and America's Future, 2007) Most young educators leaving the profession express a desire for work environments that are more collaborative and with greater autonomy over pedagogy and learning schedules. If Vermont is to be successful in attracting and retaining the best teachers, it needs to offer 21st century learning environments.

The Vermont Commission on Educator Quality, in its September 2003 publication, *Teaching Matters Most*, made the following three recommendations for supporting beginning educators:

1. **Develop detailed guidelines** for new-colleague mentoring programs.

2. **Require that new teachers be mentored** before they attain the Level II teaching license.

3. **Develop and sustain networks** for mentoring and colleague support.

As of August 2009, formalized induction and mentoring programs operated in only some Vermont school districts, and standards, expectations, and monitoring systems were not in place statewide. As a result, some districts have well-articulated and well-supported induction programs and mentoring, whereas in others they barely exist. Frequently, beginning teachers experience undue stress and discouragement as they are left to refine practices through trial and error. The consequences for both educators and learners can be less than desirable: successful recruitment approaches followed by ever-higher attrition at about 5 years of experience yield insufficient numbers of experienced educators.

Career Ladders and Four-Tiered Proficiency-Based Licensing System

> *"The quality of an education system cannot exceed the quality of its teachers."*
>
> McKinsey and Company, 2007

In a career as complex as education, which may span as many as 40 years, professionals need opportunities for advancement without leaving the profession. In so doing, experienced educators can benefit from increased opportunities to focus their professional interests and refine their skills and maintain high performance over the duration of their careers. Such is the case in other fields of specialization, such as business, medicine, and engineering: contemporary education is arguably no less complex. Structures known as career ladders create these professional opportunities in top-performing school systems. Given the wide range of needs within today's educational organizations, in which knowledge doubles in a 2-year time frame and every student must be able to exercise his/her right to learn, we have outgrown our one-size-fits-all profession.

In 21st century learning environments, the development of educators will need to reflect new requirements – proficiency in a deeper, leaner core curriculum; a student-centric approach that may drive a varied personalized focus; collaborative work styles; global learning; and a coach/facilitator role. Vermont's system of educator development will need to support teachers to grow professionally while spreading their knowledge to others over a long career. It must set the framework for educators to develop throughout a 20-year career rather than spend 20 years repeating a 1-year experience 20 times. A career ladder provides the framework for this, with teachers serving as mentors for novice educators, as experienced or career educators, or as specialists, such as community/school liaisons, researchers, coaches, curriculum specialists, and policy advisers – in addition to their roles as the quality controllers of personalized education.

The following four tiers are recommended by the Commission as the basis for Vermont's career ladder and educator licensing system.

1. **Novice educator** – new to the profession through formal college-based education or an alternative route: formalized intensive support and professional development provided during the induction phase followed by 2 years with mentor support

2. **Experienced educator** – self-directed educator with reflective and collaborative practices

3. **Career educator** – educator of students and mentors

4. **Accomplished educator** – part-time educator and part-time specialist (e.g. coach, curriculum developer)

Professional standards for educators at each step on the career ladder provide the basis for licensing, professional development, performance/proficiency-based supervision and evaluation, and knowledge-based compensation. Our present systems rely heavily on the theory, formed in the early 1900s, that more years of experience yield greater expertise. In fact, in such a rapidly changing profession as education and in a field that educators enter through a variety of routes, this theory no longer applies. There are different performance expectations and skill sets for each step in the career ladder. At any point in time, it is the proficiency of an educator that provides the most direct impact on learner outcomes and this proficiency must be thoughtfully developed, assessed, and remunerated. Placement on a career ladder is the determinant of both performance expectations and professional support, and proficiency becomes the determinant of compensation.

Therefore, teacher licensing requirements must be revised to allow for a laddered system that is proficiency based. In a new approach to educator licensing, the proficiency of an individual – the "end" rather than the "means" – will determine what level of license an educator holds. Performance-based assessments of proficiency and content knowledge will determine whether an educator will receive a license on a tier from novice through accomplished. Individuals from all backgrounds and a range of skills may work as novice teachers, having met an initial minimum set of proficiencies. Some educators may never move beyond the experienced or

In a new approach to educator licensing, the proficiency of an individual – the "end" rather than the "means" – will determine what level of license an educator holds.

career levels either by choice or proficiency level. Many, however, will work at the heart of the learning community as accomplished educators, supporting others to improve their practices. While teaching part time, they would assume a leadership role for their profession as specialists in such areas as curriculum, service learning, etc. "As the leaders of their profession, they [would be] expected to support and develop a wide array of short-term recruits as well as content experts, online mentors, and teaching assistants who, with the right supervision, contribute significantly to the teaching and learning enterprise that extends beyond the school day." (Berry, 2009.)

Licensing endorsements must also reflect the new expectations for educators – the skills that are required to support learners at each of the three phases of learning opportunities – foundational, exploratory, and focused inquiry. Teachers in the foundational stage must focus on basic skills and more structured, teacher-directed learning activities. Educators in exploratory learning environments will guide experiential and project-based learning opportunities. Teachers in the focused inquiry phase will facilitate deep thinking and learning in unique content areas of interest to students. Educators will revise pedagogy to enhance personalization of education and revise their roles as they move from sage to facilitator. Common to each level is their role as assessor and therefore guarantor of learner proficiency.

This framework for licensing is expected to provide increased participation in a learning community from adults with varying skills and interests, vastly expanding the opportunities for personalizing education. At the same time, it honors the diverse interests and strengths of career educators who never expected to be experts in everything! Finally, it supports leadership development in those who seek to become more specialized, to work with adults, or to affect organizational change.

Ongoing Job-Embedded Professional Development

Studies of career-long educator effectiveness universally subscribe to the importance of job-embedded professional development. In Vermont specifically, the September 2003 report of the Vermont Commission on Educator Quality identified professional development as a critical component of high-quality education in Vermont. "In a time of scarce resources and high expectations for schools, Vermont has designed a structured support system that enables schools to stay connected as they work to enhance teacher quality." It provided recommendations for how this could be accomplished, several of which are as follows:

- Provide and evaluate job-embedded professional development
- Create and sustain a statewide system of regional professional development collaboratives.
- Provide professional development opportunities that encourage and allow educators to move through each developmental level of the career continuum.

Not long after, *the Action Plan for the Vermont Standards Board for Professional Educators, 2008-2011* included the following Goal and Strategy:

> Goal 2: Develop a continuum of career-long educator development that is efficient, innovative, and responsive to the needs of Vermont's students and educators, and sustain, through high-quality professional development and re-licensure processes, a community of educators who are knowledgeable, reflective, lifelong learners
>
> Strategy 2.3: Promote high-quality professional development as part of a continuum of career-long educator development

Internationally in a report prepared by the National Council for Teaching, *Building a 21st century US Educational System*, the following quote illustrates the value placed upon professional development in countries with highly-ranked school systems. "The government pays for 100 hours of professional development each year for all teachers in addition to the 20 hours a week they have to work with other teachers and visit each others' classrooms to study teaching."

Schools that are effectively preparing their students for college and 21st century careers are getting the job done by transforming themselves into genuine learning organizations.

Developing an educational community into a learning organization and maintaining its effective operation may appear daunting. A tiered licensing system and career ladder model create the human resources. The regional governance model recommended by the Policy Commission provides the structure for this to occur. Regional contracts will provide the framework within which to allocate financial resources and provide professional development. Within these contracts are significant additions for professional development and 21st century education environments, such as time for teacher collaboration. Teacher evaluation focused on proficiency on a career ladder enhances professional quality.

Leadership for 21st Century Schools

Highly effective 21st century learning environments will require educational leadership that differs significantly from leadership in school-centric organizations. The daily responsibilities of leading a consistent group of building-based teachers with relatively homogeneous schedules and practices are vastly different from leading professionals in their facilitation of proficiency-based student-centered education in a virtual world. Eighty percent of school leader time should be dedicated to being in classrooms and improving instructional practice. (McKinsey, *How the Best Performing School Systems Come Out on Top*. 2007.)

In 21st century learning organizations administrative leaders must be able to focus specifically on advancing the educational mission through three critical roles:

1. Cultivate pedagogical expertise.
2. Build school and community partnerships.
3. Elevate their policy voices on matters related to student learning.

> Whereas management tasks will be no less important, our current human resource models will no longer match the need and new management approaches will need to be enacted.

Doug Reeves in his 2009 publication, *Assessing Educational Leaders: Evaluating Performance for Improved Individual and Organizational Results*, states: "It is the role of a 21st century leader to ensure the development of a professional learning organization – so that teachers can focus on learner outcomes, so that learners' educational goals are achievable through necessary levels and types of support from educators with a focus and the requisite skills for learner achievement." Reeves' leadership model includes 10 domains – personal behavior; student achievement; decision-making; communication; faculty development; leadership development; time, task, and project management; technology; learning; and resilience. The irreplaceable role of a truly excellent educational leader is that of ensuring that educators make a positive, lasting impact on learning. Educational leaders must focus on the effectiveness of education for each child.

Recommended Policy Actions

Educator Preparation Programs

1. By July 2010, **repeal Vermont's Results Oriented Program Approval** and put a 1-year hiatus on the review and approval of Vermont's educator preparation programs.

2. By July 2011, define rigorous standards for accredited educator preparation programs and develop a revised program approval process for Vermont's educator preparation programs and alternative routes to licensure that emphasizes 21st century educational practices and outcomes, including significantly **expanded clinically based learning** in 21st century education settings.

3. By July 2011, establish incentives to education districts to develop and operate **practicum sites** for placement of educator preparation students in 21st century educational settings.

Educator Induction and Mentoring

4. By July 2011, adopt a **model teacher induction and mentoring process** with proven success in high-performing schools and establish educator licensing requirement that this or comparable induction/mentoring program shall be completed prior to Level II licensure.

5. By July 2015, establish ongoing **professional development and support for inductees and educator mentors** through the regional governance structure

Career Ladder & Tiered Licensing System

6. By July 2012, the Vermont Standards Board for Professional Educators will **adopt professional standards for teachers and administrators** that implement a four-tier career ladder and proficiency-based licensing and endorsement structure aligned with world-class 21st century educational practices.

7. By July 2013, adjust and/or establish rules and procedures regarding educator preparation, professional development, educator supervision and evaluation, and educator contracts and compensation that **apply the newly established career ladder and educator licensing structure**.

Recommended Policy Actions - continued

Job-Embedded Professional Development

8. By July 2012, establish state policy requirement that each district provide daily schedules for teachers that include 10+ hours per week of compensated **time for teacher teams to conduct collaborative planning** and instructional improvements that support increased learner achievements

9. By July 2013, establish a **state and regional professional development system** that adheres to quality professional development criteria and advances education transformation and 21st century education practices.

10. By July 2013, establish state policy requirement that each district provide **substantive professional development** (e.g. 100 hours annually) to enable professional proficiency and linked to a focused area of practice identified as a priority within the district or in an individual professional development plan.

11. By July 2015, each regional education district shall re-form and strengthen its **regional professional development network** to coordinate expertise and use of human resources based on regional needs and to align with vision of education transformation and career ladder/tiered licensing model.

Leadership in 21st century schools

12. By July 2012, adopt professional standards and **proficiency-based licensing requirements** for education administrators that address critical leadership skills in 21st century learning organizations.

13. By July 2013, establish district organization structures and re-conceptualize leadership roles and responsibilities in order to enable **transformative educational leadership** that focuses on longer term learning goals throughout the system.

14. By July 2015, establish **regional structures of leader support** and leader supervision and evaluation that ensure appropriate performance expectations are achieved.

Section V:

Formation of Regional Education Districts

Purpose:

To expand capacity, variety, and quality of learning opportunities within each district responsive to the changing needs and interests of a new generation of learners.

Issues of governance within the education sector can have a profound impact on access to and the quality of education.

Eldis, 2009

Rationale:

To ensure all our children and future generations can acquire the knowledge and skills essential to succeed in a global and technological world and develop their individual talents, they need access to new, broader, more diverse and personalized learning opportunities. Because Vermont's per student cost is already among the five highest in the country, we must maximize our current resources toward this end.

Limiting education to the town of residence is an anachronism. To access the full array of learning opportunities each learner deserves, we can no longer limit learners just to education options available by their town of residence. Modern living often means leaving our town of residence to consult doctors, shop, send or receive communications, obtain repairs, seek entertainment, attend college, or work with contractors. Yet we not only accept the limitation of town of residence on PK-12 educational opportunity, many seem to even prefer to impose this limitation on our children.

To access the full array of learning opportunities each learner deserves, we can no longer limit learners just to education options available by their town of residence.

Larger districts can offer learners access to multiple schools, to learning opportunities beyond any school walls, to distance and on-line learning, and to learning opportunities at postsecondary institutions. Larger districts would engage learners and their families in planning their educational services rather than passively attending the town school as the sole educational option.

The formation of regional education districts would broaden educational choices for learners and their families.

Larger districts would engage each learner in broadened educational opportunities tailored to their own needs and interests. Larger districts could also encourage schools to specialize and refine what they do well and to jettison those services they lack capacity to do effectively. It could encourage the development of magnet schools that are responsive to unique learner interests.

Larger districts offer an education system with greater resources that enable more flexibility to fund learners rather than schools.

But local education governance is a proud artifact of Vermont history and this history still shapes strong feelings about how best to provide a public education for our children. From 1777 to 1892, Vermont education was delivered and governed by legislatively established common schools scattered throughout Vermont's villages and settlements. Each town had multiple schools, each operating as its own district with a governing board. At its peak, Vermont's common school system served about 97,000 students through 2,500 school districts. This dispersed governance structure made it difficult to ensure the quality and equity of education. In 1892, after more than two decades of unsuccessfully encouraging common school districts within a town to consolidate, state legislation mandated town school districts that consolidated the state's 2,500 common school districts into fewer than 300 town school districts.

This concept of town school districts is still in statute today:
V.S.A. 16 § 421 a – A town shall constitute a school district.

In a continuing effort to improve Vermont's education quality, the 1906 legislature created the option for towns to join together into a supervisory union (SU). Town school district boards in the union hired and directed a superintendent to provide administrative services for all schools in the SU. Today, a superintendent of an SU is often directed by as many as 13 separate school boards composed of scores of board members. These conflicting layers of governance make it difficult or often impossible to coordinate curricula, assessments, educator professional development, efficient purchasing and contracting, staffing needs, etc. The SU remains the governance structure Vermont uses today. Vermont has 51 supervisory unions, 12 supervisory districts (a form of supervisory union), and 290 governing school districts to serve a declining population of approximately 90,000 learners. The table below compares the magnitude of Vermont's district structure to other selected states:

State	# of Students	# of School Districts	Avg. Students Per District
Vermont	90,504	290	312
Maine	193,986	287	676
New Hampshire	203,498	183	1,112
Wyoming	85,034	52	1,635
Massachusetts	943,728	328	2,877
New York	2,757,907	697	3,957
Rhode Island	136,940	32	4,279
Delaware	114,678	19	6,036
Maryland	851,640	24	35,485

Vermont has the lowest average students per district in the country. Moreover, Vermont's average of 312 students per district is less than 10 percent of the national average of 3,382. It is also less than 10% of the national median of 3,398. [Data from National Center for Education Statistics for school year 2006-2007.]

There have been several attempts in the last two decades to consolidate Vermont town school districts into larger education districts. Each attempt has failed because of strong sentiments for local control. The Commission recognizes that a move toward increasing the size of governing districts is bound to raise legitimate concerns. Although this task may seem impossible, it is also unavoidable if Vermont's education system is to be transformed. The Commission believes that a regional district governance system will provide better opportunities for Vermont children to learn.

The fundamental purpose of education districts is to consolidate educational resources and expand learner and family access to these resources to enhance their learning options.

Forming these larger districts to expand learning options is critical to the success of education transformation for a new generation of learners. The fundamental purpose of education districts is to consolidate educational resources and expand learner and family access to these resources to enhance their learning options. Changes to Vermont's school district structures over time have strived to achieve increased effectiveness and efficiencies. The Commission does not promote the change to larger districts as a method to greatly reduce costs or administrative positions. It will not accomplish either. It will allow human and financial resources to be better leveraged in service to learners. With larger education districts, learners would have full access to enroll (full- or part-time) in any public and

approved independent school in the district. This could be done easily without complex cross-district agreements and cost reimbursement mechanisms, which currently limit meaningful school choice for Vermont students. **All public PK-12 schools, including career and technical education centers, within set geographic borders would operate as a single education district.**

The status quo of 290 school districts in our small state does not serve students well. The Commission recommends fewer and larger districts. The Commission is of like mind on this element of transformation, although the members are undecided on an exact recommended number of reconstituted districts.

The Commission puts forth two different redistricting proposals – 13 districts and 20 districts. There are many stakeholders who will speak on our proposed redistricting examples and we are aware that some will bring forward their own redistricting proposals (i.e. 40 districts, 50 districts). The Commission's proposals are a sound place from which to facilitate the discussion and offer criteria for evaluating other proposals. To best inform decisions regarding governance, the Commission recommends that the State Board appoint a Redistricting Commission to conduct hearings, do further research, and bring final recommendations forward.

Basis for Policy Recommendations:

To accomplish the stated purpose and to clarify our policy recommendations, the Commission shares its thinking in four areas:

1. Formation of Regional Education Districts & Amending V.S.A. 16 § 421 a
2. Membership and powers of education district boards
3. Membership and powers of community school councils
4. Development and transition process for implementing education districts

Formation of Regional Education Districts (Amending V.S.A. 16 § 421 a)

Education district boundaries must be large enough to truly open new educational options to all learners. Therefore, **each regional education district must offer multiple high schools, at least one technical center, a broad array of elementary schools, and a strong postsecondary education partner.** Each education district must also offer reasonable geographic access (e.g. distance, roadways). The Career & Technical Education regions offered a helpful starting point for shaping the new education district boundaries. Because applied learning and career and technical learning opportunities are an important component of education transformation, having the new education districts reflect their

regions is a valuable strategy for strengthening the integration of academic and technical learning.

Applying the above criteria, we developed an illustrative 13-districts model. Appendix K fully outlines this option. Below are just two sample education districts from this 13-district model, one very rural and the other densely populated. They illustrate how these education districts offer legitimate school choice, have potentially strong postsecondary partners, serve a reasonable number of learners, and consolidate existing unions/districts serving approximately 20 different towns. The 13 districts result in a district average of 6,962 students, above the current national average.

Illustrated Example #1: **South Central Vermont Education District (13-Districts Model)**

High Schools	7 public - 1 approved independent *
CTE Centers	Randolph Technical Center
Elementary Schools	18 public
Approximate # of PK-12 public learners	4,200
Postsecondary Partners	Community College of Vermont Vermont Technical College
Former Supervisory Unions/Districts	Orange North SU; Orange SW SU Orange Windsor SU; Washington South SU; Windsor NW SU
Towns	19

*Only counted approved independent schools serving 30+ students.

Illustrated Example #2: **Rutland County Education District (13 Districts Model)**

High Schools	7 public - 2 approved independent
CTE Centers	Stafford Technical Center
Elementary Schools	22 public 1 approved independent
Approximate # of PK-12 public learners	8,400
Postsecondary Partners	Castleton State College Community College of Vermont
Former Supervisory Unions/Districts	Addison Rutland SU; Rutland South SU; Rutland NE SU; Rutland Central SU; Rutland SW SU; Rutland City
Towns	22

To further illustrate redistricting statewide, the Policy Commission structured a second possible redistricting proposal defining 20 districts. This 20-district model is found in Appendix L. Although the 20-district model makes each district smaller, it also results in each district having less capacity and fewer resources. For example, one district only has one high school, five districts only have two high schools, and four districts have no career and technical center.

To ensure that any redistricting process has integrity, it must be properly vetted so all stakeholders have a voice. **Therefore, before acting on any redistricting proposal, the Commission recommends that the State Board of Education conduct public hearings to solicit input on other possible redistricting proposals.** The Policy Commission requests that the State Board of Education apply our recommended redistricting principles and adhere to the values of a true regional model on any other redistricting models under consideration. The regions must be large enough

- to expand choice and learning opportunities for learners;
- to expand capacity for critical functions, such as professional development, coordination of curriculum, instruction, and assessment;
- to increase flexibility for use of staff and facilities; and
- to strengthen coherent implementation of education transformation.

Once the State Board decides on the final Education District boundaries that can best serve Vermont learners, the Commission recommends the State Board of Education select and act on one of the two proposed strategies for its implementation. The first strategy leaves the redistricting authority with the legislature. The second strategy acknowledges that governance is such a key factor influencing education quality and therefore authority to establish education districts more appropriately belongs to the State Board of Education who has authority and accountability for education quality.

Option #1 is to amend V.S.A. 16 § 421 a. It would be amended to list the desired number of education districts, with each district listing all of its member towns.

Option #1 would replace the current law that states a town constitutes a school district. In addition, the Commission recommends that any amendment language for 421 a include general directions for how the redistricting will handle the closing of current districts and resolve transfer of their assets and liabilities. Possible language for consideration is provided below:

> On the date each education district becomes fully operational and begins providing education services to learners, it shall supplant all other school districts, supervisory districts, and supervisory unions within its borders and they shall cease to exist. Except as may be provided via State Board waiver, these newly formed education districts gain title to the real property and assets and assume the obligations and liabilities of the terminated districts/unions within its borders. If at some time in the future, any individual school building and real property is unnecessary to the operation of the District's educational program and it is in the best interest to sell said building or real property, the right of first refusal will be given to the respective municipality in which the building or real property is located to purchase the school building or real property for $1.00.

Option #2 to execute redistricting would repeal V.S.A. 16 § 421 and expand statutory powers of the State Board of Education with authority to establish education districts.

Option #2 would strengthen the State Board's capacity to execute its responsibilities to oversee the quality of Vermont public education. Currently, although it has responsibility for education quality, the State Board cannot direct the governance and delivery structure for public education. The legislature holds that power and has not delegated it to the State Board. As governance has a profound impact on education quality, the current statutes have failed to give the State Board of Education the authority it needs to fully carry out its duties and responsibilities. If the legislature delegated this authority to the State Board, it would also minimize the political pressures that accompany and restrict such a decision and keep the focus on what is the best benefit to PK-12 learners, as it would allow changes in the future without legislative action.

Membership and Powers of Regional Education District Boards

V.S.A. 16 § 423 & 563 (membership and power of school boards) and V.S.A. 16 § 261a & 266 (duties and membership of supervisory union boards) need to be repealed. Legislation to define the membership and powers of the newly constituted Education District Boards will need to be adopted as statute. The Policy Commission proposes the following as content for such legislation:

MEMBERSHIP

Without a waiver granted by the State Board of Education, each Education District Board shall consist of not less than 7 or more than 11 members, dependent on the number of towns assigned to the district. Membership will be apportioned based on the combined population of all member towns, as determined by the year 2010 Federal Census and every 10 years thereafter. The number of town representatives elected to an Education District board shall be determined by dividing the resident population of each respective town in the district by the total aggregate population of the towns and then multiplying by 11. If the result of this calculation is .5 or greater, round to the nearest whole number to determine the number of board members that shall represent those individual towns. The balance remaining for board members will be elected by a commingled vote across all remaining towns.

Illustration: Sample District

Member towns	Census population*	Town population divided by aggregate population	Multiplied by full board membership of 11	Board members
Sample Town A	900	.045	.5	1
Town B	800	.04	.44	shared
Town C	7,000	.35	3.85	4
Town D	1,000	.05	.55	1
Town E	4,000	.20	2.2	2
Town F	800	.04	.44	shared
Town G	600	.03	.33	shared
Town H	5,000	.25	2.75	3
			****Sample towns B, F and G would jointly elect ONE member**	
TOTAL	20,000		11	11

* Not real data. For illustration purposes only.

POWERS

The **powers of an education district board** shall be revised to align with education transformation and to eliminate responsibilities to supervisory union boards. This will require revisions to V.S.A. 16 § 563. Existing statutory language shall be edited to show Education District Boards with the following duties and powers:

Each Education District Board is accountable to its communities and the State Board of Education and shall be responsible to ensure the district is fulfilling all requirements and obligations. The District Board shall:

1. Envision the educational future in conjunction with the community and then formulate the goals, define the student outcomes, and set the course for its public schools through policy

2. Establish a sound organizational structure through policy and create an environment that will permit all students to attain a high-quality education designed so that all learners, regardless of personal demographics and life experience, shall fully achieve the rigorous learning expectations essential for success in college, careers, and citizenship in this global and technological age.

3. Ensure the continuing assessment of all conditions affecting education and that schools are accountable for results in student learning. Boards provide fiscal oversight, monitor policy compliance and student achievement, oversee program

corrections as necessary, keep the public informed of the status of education programs and student progress, and ensure the proper and efficient use of resources in school operations.

4. Conduct business in an ethical, fair, respectful, and responsible manner.

5. Serve as public education's most important advocate on behalf of students and the schools. This includes advocacy to the voters for needed resources, such as facilities and funds. It also includes advocacy to other state and local agencies and private groups whose efforts could help the schools achieve their vision.

6. Hire a Superintendent of Schools to act as Chief Executive Officer of the District and delegate to the Superintendent all operational decisions within the limits of law, regulations, and district policy, as well as all other hiring decisions. The board shall evaluate the superintendent performance annually, based on established performance criteria.

7. Ensure, through its superintendent, compliance with all applicable federal and Vermont laws, rules, and regulations, including the Education Quality Standards.

Membership and Powers of Community School Councils

Community School Councils will exist to advise the principal on how best to educate learners and improve school performance. The council helps shape the school environment and school site implementation of the vision and policies of the Regional Education District Board. Each Community School Council shall have no fewer than five or more than eight members. Membership should include those with the strongest interest in the school – e.g. staff, students, parents, and community members. Duties and powers of the Town School Council shall include:

1. Advise the school administrator on education performance issues, including proposing a budget and a plan for desired educational services at the school.

2. Communicate with learners and their families on the nature of educational options available and solicit local input on how school could better serve learner needs.

3. Advise on continuous school improvement.

4. Engage the community as active contributors to school for enhanced learning opportunities.

Development and Transition Process

Transition to a governance structure of education districts will require several years. There are many difficult tasks to complete, such as transfer of assets and liabilities from old school districts to newly formed education districts; educating learners and families to take a more active role in selecting learning opportunities; resolving transportation issues; determining how to best organize education options across the district to the best benefit of

learners (e.g. magnet schools, redesign of Career & Technical Education to expand access to all); adopting district education policies; building postsecondary partnerships; adopting district personnel policies, establishing pay equity for teachers across each district; resolving legal employment issues, existing collective bargaining agreements, and determining process for future contract negotiations; ensuring that low-income families have equal access to learning opportunities across the district; and strengthening professional development for educators in the district.

State support for this transition process shall include such things as legal counsel, draft policies, guidance on transition process and procedures, and provision of data and information. To support a smooth transition, a multiple-year process will be essential. We advise the State Board to establish benchmarks to monitor the phase in process of merging existing districts and supervisory unions into the regional education districts.

Recommended Policy Actions:

1. By March 2010, the State Board of Education shall appoint an **Education Redistricting Commission**, with at least one member of the Policy Commission, to solicit stakeholder input on the Commission's recommendations and affirm or adjust the recommendation.

2. By July 2012, Vermont's PK-12 public education system is constituted into **12 to 24 education districts**. Each education district shall be governed by a single district board.

3. By December 2012, the State Board of Education shall release guidelines for a **multi-year transition process** leading to full implementation of the education districts by 2015.

4. By July 2013, each PK-12 public school shall have formed a **Community School Council**.

Conclusion

". . . the historical problem of getting good educational practice to scale . . . is not the supply of ideas. . .The problem is the demand for them. None of the best practices have ever been taken to scale — an enduring problem of educational reform. Effective policies and practices do not scale up because . . . rarely are there intentional processes for the reproduction of successes. Rarely are there structures that promote learning of new policies and practices — or incentive systems to support them."

Richard Elmore, *Getting to Scale with Good Educational Practices*. Harvard Review, 1996.

The Commission recommendations are each driven by the goal of increasing learning and ensuring equity of education outcomes. The Commission recognizes that it will require intensive and consistent leadership to advance these recommendations. Some will not be popular. Some will require carefully planned support for the field to enact new policy. The suggested timelines are ambitious.

The Commission recommends that the State Board consider numerous factors that can affect the implementation of our recommendations.

- **Funding for implementation of education transformation** – The Commission recommends the State Board secure funding for a 5-year implementation period. Transformed education practices do not cost more than traditional practices, but it will require transition funding.

- **State Board powers** – Review and analyze State Board powers to identify expanded powers necessary to enact education transformation. Two immediate areas include power to decide school districts and powers over educator standards, preparation, and licensing.

- **Coherent statutory policy** – There are many recommendations requiring statutory changes. There is also a need to eliminate and/or reorganize existing statutes so they more clearly describe requirements for transformation.

- **No Child Left Behind** – Review the implications of how the Commission's recommendations affect NCLB.

- **DOE Capacity** – Determine how to advance transformation recommendations within and regardless of declining DOE capacity.

- **Education Funding System** – Analyze how Vermont's education funding mechanism impacts Commission recommendations. Education policy should drive funding mechanisms rather than funding mechanisms driving education policy. While the Commission recognizes that Vermont's education funding system faces serious challenges, it was intentionally not addressed as it was seen as beyond the charge to the Commission.

The Commission stresses the critical importance of establishing inclusive processes to fully vet the recommendations in this document, as ultimately educational stakeholders will be essential to genuine implementation of transformation. The Commission recommends that the State Board set a timeline for making decisions on our recommendations.

Finally, it is important to value the interdependence of the Commission's recommendations. For the greatest gain in learner achievement, the Commission believes the recommendations must be fully implemented as an integrated and comprehensive whole.

The Commission envisions that its recommendations will help focus efforts to bring education transformation to reality and to create a forum for broad dialogue through stakeholder reactions and input. Below is a Gantt chart of all our recommendations.

Timeline of Policy Recommendations

Objectives	2010				2011				2012				2013				2015			
	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
Education Quality Standards																				
1. By March 2010, the State Board of Education shall appoint an **Educational Quality Standards Commission** to develop and propose a set of quality standards.	X																			
2. By December 2010, the State Board of Education shall complete a total review and **redrafting of Title 16** and their administrative rules to identify existing policy that should be eliminated and organize policy into a more coherent policy structure that is easily accessible and understandable to education districts and the general public. Statutory changes shall be approved by the legislature by May 2011.				X																
3. By January 2011, the State Board of Education will **adopt a set of Educational Quality Standards** for Vermont public education. These standards shall be broadly supported and align with the content and purposes of EQS described in this report.					X															
4. By January 2011, the State Board shall **submit amendments to 16 V.S.A. § 165** regarding standards of quality for public education, including clarification of the monitoring body as VT DOE, NEASC, or a newly created Education Quality/Transformation Consortium.					X															
5. By September 2012, public PK-12 schools shall begin a staggered 3-year cycle in which they implement "**education quality assessments**," guided by sound action research techniques, whereby teachers and administrators can continually collect data on actual teaching and learning practices being used in the education process of enrolled learners and meaningfully use the collected data as a tool for teachers and schools to continually develop more effective practice.											X									
Learning Expectations																				
6. By March 2010, the State Board of Education shall appoint a **Learning Expectations Commission** to develop 21st century learning expectations and revise the Vermont Framework of Standards.	X																			
7. By January, 2011, the State Board of Education shall adopt an amended **Vermont Framework of Standards**. This newly adopted Vermont Framework shall reflect the concepts described in this report.					X															
8. By July 2011, adopt state **proficiency-based graduation** requirements. Such graduation requirements will reflect the breadth of skill areas defined in the revised Vermont Framework and align with college entry requirements at Vermont higher education institutions.							X													

Objectives	2010				2011				2012				2013				2015			
	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
9. By July 2012, the commissioner of education shall provide a bank of **benchmark performance assessments** and scoring guides for possible use by school districts. This resource will include performance assessments at each of the three stages of learning progression. It will emphasize performance assessments focused on skill sets not currently assessed by the New England Comprehensive Assessment Program (NECAP).											X									
10. By July 2012, each district/school will be in transition from grade-level grouping of learners to **multi-age small learning communities** for the purpose of coordinating differentiated learning opportunities. Full implementation shall be completed by 2015.											X								X	
11. By July 2012, each PK-12 learner will have an approved **personal learning plan**, as required by the Education Quality Standards.											X									
12. By July 2012, every education district providing grade 9-12 education opportunities shall adopt **evidence-based graduation requirements** that incorporate state graduation requirements. These district graduation requirements will be the basis for granting diplomas beginning with the graduating class of 2016.											X									
13. By December 2012, every education district in Vermont shall adopt and implement an **evidence-based grading and promotion policy**.												X								
14. By July 2013, each district will determine and establish **policy for assessing learner proficiency against the standards**. Finalized local policy shall be submitted to commissioner of education no later than December 31, 2013.															X	X				
PK-16 Partnership																				
15. By March 2010, establish **a state-level PK-16 partnership.**	X																			
16. By June 2010, the partnership will establish specific and ambitious **state-level educational attainment targets and strategies to achieve the targets.**		X																		
17. By June 2010, the partnership will convene experts to develop **policy and practice recommendations to eliminate performance gaps based on socioeconomic status.**		X																		
18. By September 2010, the partnership will develop policy recommendations to implement **local and state-level early commitment models.**			X																	
19. By January 2011, a commission of secondary and postsecondary education will develop **state-level standards for college readiness.**					X															

Objectives	2010				2011				2012				2013				2015			
	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
20. By April 2010, establish a dedicated, **sustainable, and sufficient state funding mechanism** for high school students to enroll in college courses while still in high school.		X																		
21. By June 2010, **expand access to VAST beyond VTC and beyond science/technology** to targeted programs at other postsecondary institutions to provide early college options and a full-year alternative to the senior year.		X																		
22. By June 2010, **require high schools to accept college credit** acquired through dual enrollment.		X																		
23. By December 2010, establish **web-based dual enrollment** opportunities				X																
Educator Quality																				
24. By July 2010, **repeal Vermont's Results-Oriented Program Approval** and put a 1-year hiatus on the review and approval of Vermont's educator preparation programs.			X																	
25. By July 2011, **define rigorous standards** for accredited educator preparation programs and develop a **revised program approval** process that emphasizes 21st century educational practices and outcomes, including significantly **expanded clinically based learning** in 21st century education settings.							X													
26. By July 2011, establish incentives to education districts to develop and operate **practicum sites** for placement of educator preparation students in 21st century educational settings.							X													
27. By July 2011, adopt a **model teacher induction and mentoring process** with proven success in high-performing schools and establish educator licensing requirement that this or comparable induction/mentoring program shall be completed prior to Level II licensure.							X													
28. By July 2015, establish ongoing **professional development and support for inductees and educator mentors** through the regional governance structure.																			X	
29. By July 2012, the Vermont Standards Board for Professional Educators **adopts professional standards for teachers and administrators** that implement a four-tier career ladder and proficiency-based licensing and endorsement structure aligned with 21st century educational practices.											X									
30. By July 2013, adjust and/or establish rules and procedures regarding educator preparation, professional development, educator supervision and evaluation, and educator contracts and compensation that **apply the newly established career ladder and educator licensing structure.**															X					

Objectives	2010				2011				2012				2013				2015			
	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
31. By July 2012, establish state policy requirement that each district provide daily schedules for teachers that include 10+ hours per week of compensated **time for teacher teams to conduct collaborative planning** and instructional improvements.											X									
32. By July 2013, establish a **state and regional professional development system** that adheres to quality professional development criteria and advances education transformation and 21st century education practices.															X					
33. By July 2013, establish state policy requirement that each district provide **substantive professional development** (e.g. 100 hours annually) to enable professional proficiency and linked to a focused area of practice identified as a priority within the district or in an individual professional development plan.															X					
34. By July 2015, each regional education district shall re-form and strengthen its **regional professional development network** to coordinate expertise and use of human resources based on regional needs and to align with vision of education transformation and career ladder/tiered licensing model.																			X	
35. By July 2012, adopt **proficiency-based licensing standards** for education administrators that address critical leadership skills in 21st century learning organizations.											X									
36. By July 2013, establish district organization structures and re-conceptualize leadership roles and responsibilities in order to enable **transformative educational leadership** and focus on longer-term learning goals throughout the system															X					
37. By July 2015, establish **regional structures of leader support** and leader supervision and evaluation to ensure that appropriate performance expectations are achieved.																			X	

Objectives	2010				2011				2012				2013				2015			
	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
Regional Education Districts																				
38. By March 2010, the State Board of Education shall appoint an **Education Redistricting Commission**, with at least one member of the Policy Commission, to solicit stakeholder input on the Commission's recommendations and affirm or adjust the recommendation.	X																			
39. By July 2012, Vermont's PK-12 public education system is constituted into **12-24 education districts**. Each education district shall be governed by a single district board.											X									
40. By December 2012, the State Board of Education shall release guidelines for a **multi-year transition** process leading to full implementation of the education districts by 2015.												X								
41. By July 2013, each PK-12 public school shall have formed a **Community School Council.**															X					
TOTAL FOR YEAR			11				9				11				6				3	

Appendices

Appendix A

Our Methodology

With a charge as broad as "recommend a state policy framework" that can advance education transformation and improve learning essential for the 21st century world of college, careers, and citizenship, we wanted to target our efforts in areas offering the greatest opportunity for transformation. To accomplish this, we divided our work into three stages:

1. Building a common understanding of education transformation: what changes to practice do we want our policy recommendations to effect?
2. Identifying the high-leverage strategies for bringing about these changes: what are the critical policy areas for driving education transformation?
3. Developing specific policy recommendations in the high-leverage areas: what concrete policies should we propose?

Work of Stage 1:

- Review of national research on education practices in the 21st century; input/discussion with select players (e.g. Linda Darling-Hammond, Richard Cate)
- Development of a "map of transformation" for Vermont
- Discussion and initial decisions regarding desired changes to education practices

PRODUCTS – See the following
Bibliography of research
Defining Education for 21st Century
Map of Transformation
Expanding From/Moving Toward Chart
Results of Discrepancy Analysis

Work of Stage 2:

- Identify core principles and values that should be reflected in policy recommendations
- Examine why past efforts for reform (e.g. HSOM, school quality standards) resulted in limited impact
- Review of public policy practices that best leverage education transformation
- Identify high-leverage areas on which we would develop specific policy recommendations

PRODUCTS – See the following

Principles and Values
Criteria for determining high-leverage policy areas
List of high-leverage policy areas

Work of Stage 3:

- Work in subcommittees to research policy and best practices in selected areas from other states and international practice
- Subcommittees bring forth initial proposals
- Full commission review and reactions to initial proposals
- Initial drafting of actual policy proposals as full commission
- Multiple rounds of edits and debates on final recommendations to include in report to the State Board

PRODUCT

Final Report containing specific policy recommendations and timeline

Appendix B

Summary Results Discrepancies, Root Causes, Strategies/Practices

RESULTS DISCREPANCY

- Finalize a synthesized list for commission of the core results discrepancies that need to be resolved through transformation

- Too many students are not attaining learning expectations
- Too many students, even successful students, are not attaining mastery level understanding and skills needed for 21st century college, careers, and citizenship
- Too large a gap in student achievement across socio-economic and gender cohorts; inequity
- Too many students are not engaged in challenging learning experiences that are relevant to their needs, interests and goals and therefore leave school (physically or emotionally) prior to graduation

- Translate each discrepancy into a goal statement. Identify proxy indicators for these results and set ultimate target goals as basis of outcomes accountability

- 95% of students meet or exceed proficiency on the reading, writing, math, and science grade expectations
- 95% of students meet or exceed proficiency in select 21st century competencies identified as essential for success in college, careers, and citizenship
- Any achievement gap between socioeconomic and gender cohorts does not exceed 5% on any academic performance measure or on identified student outcomes (i.e. graduation rate; college entry rate; college persistence rate)
- 95% of students report that their learning experiences are relevant and engaging and that they feel their teachers hold high expectations for their performance and support them to attain them

- Write a 1-2 sentence description of desired student outcomes of public education in 21st century

Students belong to a sustained, dynamic learning community that supports them to explore and attain deep understanding and full mastery of core knowledge and concepts of 21st century content, habits of mind, personal discipline and character, and the social/collaboration skills required to successfully develop and apply their learning within diverse and complex 21st century challenges relevant to careers, civic participation, college, and lifelong learning.

ROOT CAUSES & HIGH LEVERAGE STRATEGIES

- Finalize a synthesized list of root causes for commission

- Current learning expectations lack emphasis on critical content and skills needed for the 21st century demands of college, careers, and citizenship
- Current curriculum and school practices fragment learning, limit opportunity for in-depth intellectual student work over time, and give limited focus to essential 21st century knowledge, concepts, & skills
- Low student engagement in their learning – "school" not relevant or meaningful; academic content often isolated from real applications and skill development; often students not well known and not supported to be an agent of own learning
- Tracking, low expectations for struggling students, passive acceptance of learning inequities between various student cohorts, and the lack of differentiated instruction and flexible pathways make it nearly impossible for a large portion of students to succeed in school
- Obsolete school structures and teaching practices demand that teachers work in isolation, that teachers have limited time and focus to get to know their students well over time, and that teachers have little authority and support to adjust teaching and learning in response to student needs/interests

■ Translate root causes into high leverage strategy & practices

- Lean, focused, rigorous, 21st century learning expectations truly aligned to knowledge and skills needed for college, career, and citizenship readiness

- 21st century teaching and learning practices

    1. Students engage in in-depth intellectual work over time through collaborative inquiry, information analysis, experimentation, and teacher guidance.

    2. Real world immersion supports skill development through applications within rich content and relevant contexts

    3. Learning opportunities have coherence and routinely provide interdisciplinary content and skill development

    4. Use of technology as a learning tool.

    5. Through performance based assessments, students monitor, refine, and manage their own learning and the quality of their own products.

- Personalized learning environments offer lasting and meaningful relationships and individually responsive and flexible learning pathways and school schedules enable all students to achieve the same rigorous learning expectations

- Accountability for student success unites educators and empowers them to make decisions about curriculum, instruction, assessment, use of learning time and resources, and any other factors (e.g. professional development; parent involvement) that directly influence student performance.

- Teachers and administrators are supported in use of 21st century education practices with

    1. high quality preparation programs
    2. substantive, ongoing, job embedded professional development
    3. on-site instructional and leadership coaches
    4. licensure and incentives that encourage high performance
    5. effective school structures (i.e. governance; technology; funding and resources dedicated to learning; personnel and program evaluation systems; staffing patterns; strong parent, community, and higher education partnerships)

Write a brief description for each of the 4-6 most significant high leverage change strategies

STRATEGY	BRIEF DESCRIPTION
Learning Expectations	Power standards focus on essential concepts and capability to apply them and develop real world competencies. Traditional academic areas (i.e. ELA; math; science; social studies) are enhanced with interdisciplinary study. 21st century competencies are emphasized and embedded across the curriculum (i.e. critical thinking; use of technology; leadership and collaboration; creativity and innovation; inquiry and investigation; communications; economics; global awareness; entrepreneurship; self-directed learning). Learning expectations are directly and clearly linked to college and career readiness as defined by international benchmarks.
Teaching & Learning Practices	Role of teacher and student are re-defined for 21st century. Students become agents of their own learning and teachers become learning guides and coaches. Learning occurs in interdisciplinary contexts with a heavy focus on applications. Focus is on in-depth learning over time of core concepts and challenging intellectual work rather than rote coverage of broad content. Students revise their work until they reach mastery level performance, as required for college and career readiness. Peer collaboration on substantive projects is a primary practice. Information technology is daily tool for exploring and learning. Time and location for learning adjusts with projects and students. Student learning is supported with community contacts and even national experts in a field. Students work yields real products of value beyond school walls. Skill demonstration occurs during actual performance of tasks and projects, not on teacher developed tests.
Personalized Learning	Student learning experiences are relevant to individual interests, needs, and goals. Students have positive, strong, and long term relationships with peers, teachers, and "mentors". Small learning communities support students to be well known and valued members of a group of 60-100 students working with an interdisciplinary faculty of 2-4 teachers over extended time (over 50% of each day for 2-4 years). Individual progress toward learning expectations is continually monitored and differentiated supports are provided so each student can reach mastery. Differentiated supports are provided to all students during learning activities and some students are also provided with extra support and reinforcing learning opportunities. School choice and flexible learning environments support parents and students to select the opportunities that can best support each student to be successful.
Shared Accountability	An interdisciplinary teacher group is assigned to a common set of students. Because these teachers share the same students, they have collective accountability to ensure that each student attains mastery. They also have joint autonomy to plan learning experiences, decide learning schedules, decide curriculum, instruction, and assessment strategies, and how to expend resources in ways that best support the success of their students. There are school wide learning expectations with rubrics for evaluating student skill demonstrations, but the assigned teacher group has autonomy for determining how best to support their students to attain the learning expectations.

Educator Support	Standards of practice for teachers and administrators have been clearly articulated and there is ongoing feedback and reflection on how actual performance aligns with desired practices. Teachers and administrators are well supported with professional development, coaching, and with strong professional networks both within and outside the school. School structures and work protocols that hinder desired performance are adjusted. For example, if learning opportunities are limited by short class schedules the school schedule is adjusted to better support student learning. If a principal struggles with providing educational leadership because of operational duties (e.g. facilities; transportation; fiscal management), such responsibilities are re-assigned to enable time for in-depth educational leadership tasks. Incentives and performance accountability drive educators toward high performance.

Appendix C

Defining a 21st Century Education

What is Transformation?

Before drafting any policy recommendations to effect change, the Policy Commission wanted to be precise about what changes would best support learners to acquire the knowledge, skills, and habits they will need to be successful in college, careers, and citizenship in the 21st century. Exactly how does Vermont's education system need to reinvent itself? What is transformation? How will learners and the community benefit from a transformed education system?

Although Vermont's education system is one of the highest performing in the country, the global forces of the 21st century are demanding new outcomes from public education that cannot be achieved by the existing system. One new outcome calling for transformation is that today's **learners need an expanded set of knowledge and skills** to be successful in a global and technological society. Traditional academics and a traditional curriculum are no longer enough – even for the highest achieving learners – to be successful in careers, college, and citizenship. The core knowledge of traditional academics is still the essential foundation but it must expand to broader competencies, such as information literacy, research, information and communications technologies, critical thinking, creativity and innovation, collaboration, solving complex and open-ended problems, civic and economic literacy, etc. Learners must **be able to apply** both the core knowledge and broader competencies **to real-world situations** at work, at home, and in their communities. Content mastery is no longer enough. Learning through meaningful projects and community applications must be ongoing. Embedding these new learning expectations into Vermont's education system will demand significant transformation of our curriculum, instruction, and assessment practices from preschool through college.

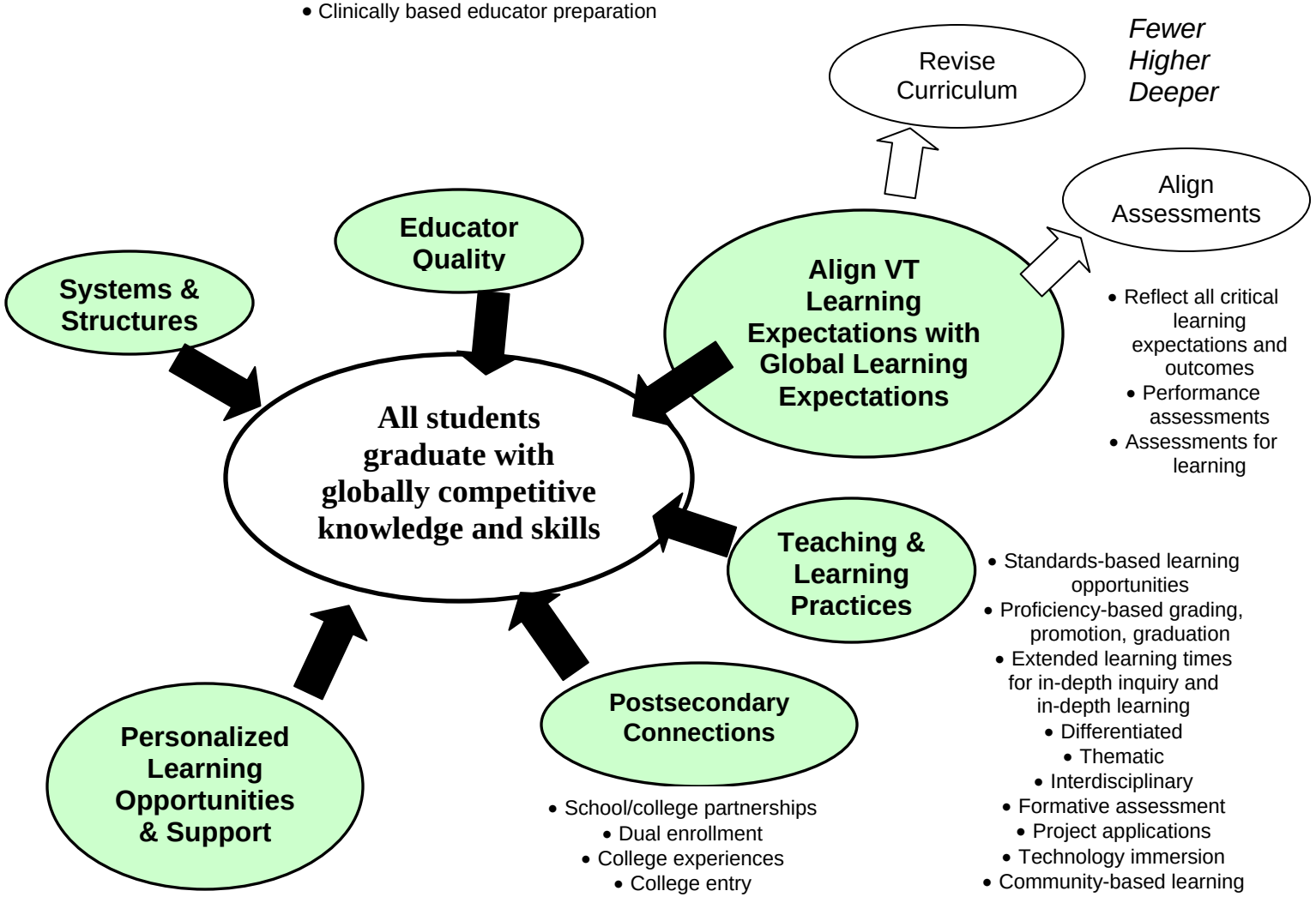
A second new outcome that creates powerful demands for transformation is that **all learners need to achieve at the highest level**. Our current education system has tolerated significant achievement gaps among learners, especially between socioeconomic cohorts. Bell-shaped learning curves are accepted as the norm. For decades, Vermont and the nation have accepted that only 25% of our citizens earn a college degree. But with the changing demands of a 21st century world, every person needs the highest level skills to succeed in daily living. Every learner needs to graduate from Vermont's K-12 system ready for college success. This new social responsibility for educational equity in combination with the raised bar for expanded learning expectations places huge demands for transformation on Vermont's education system. A commitment to support every individual learner to achieve at the highest level will demand more flexible and diverse learning opportunities and a much more personalized education experience. Our current education system has time and instruction as the constants and learning as the variable. In a transformed system, learning will become the constant and time and learning opportunities the variables.

Our "Map of Transformation" on the next page is a graphic representation of what the Policy Commission sees as critical elements of transformation. It seems clear from our research that transformation is not just about changing schools; it is about changing the entire education system. This analysis gave us needed focus for our policy work. Transformation of this magnitude is a huge undertaking that will require moral courage, collective leadership, new spending strategies, and a 5- to 8-year timeline with ongoing accountability. We hope that our policy recommendations make some meaningful contribution to accomplishing this goal. We believe that Vermont can continue well into the 21st century to offer its learners the best education options in the country.

Appendix D

Map of Transformation

- Teaching teams
- Effective teachers assigned to neediest students
- Professional learning communities
- Teacher evaluation reflects outcomes and best practices
- Strong educational leadership
- 100 hours professional development
- Clinically based educator preparation



- Schedules support in-depth learning
- Data systems track critical performances
- Common scoring guides/rubrics
- Community involvement
- Collaborative teacher planning time
- Flexible student grouping
- State/local policies support best practices
- Governance supports best practices & learning options
- Funding supports best practices & learning options

- Reflect all critical learning expectations and outcomes
- Performance assessments
- Assessments for learning

- Standards-based learning opportunities
- Proficiency-based grading, promotion, graduation
- Extended learning times for in-depth inquiry and in-depth learning
- Differentiated
- Thematic
- Interdisciplinary
- Formative assessment
- Project applications
- Technology immersion
- Community-based learning
- Student and teacher learning communities, looping
- Online learning
- Equity of access

- Student interests and goals
- Flexible pathways
- Personal learning plans
- Tiered interventions & support for both high- and low-performing students
- Transition support
- Family connections
- College/career planning
- Individual performance tracked against standards
- Early warning
- Support with learning & study skills

- School/college partnerships
- Dual enrollment
- College experiences
- College entry
- Transition support
- All students take college entry exams and apply to one college

Appendix E
Essence of Education Transformation

Expanding from	Moving to
• Some students achieve	• All learners achieve
• 20th century academics	• 21st century academics + 21st century skills
• Expectations vary for different cohorts	• Every learner graduates college ready
• "Stand and deliver" curriculum; limited options for students	• Personalized, flexible learning options; expanded opportunities for learners
• Separate disciplines	• Interdisciplinary learning
• Rote memorization of facts; content mastery; answers; "mile wide/inch deep"	• Deep understanding of core concepts & higher-level thinking; questions; experiential
• Common sense; thesis	• Imagination; synthesis
• High reliance on tests and quizzes	• Demonstration of proficiency through application of knowledge/skills in real world tasks/projects
• School-based instruction	• Community/world-based learning
• Age-based grade level cohorts	• Stages of learning progression
• Too many students disengaged	• All learners active
• Teacher as expert; dogma	• Teacher as facilitator of learning; discovery
• Teachers as workers	• Teachers as professional knowledge leaders
• Individual, short-term professional development	• Systemic, substantive, job-embedded professional development
• School administration	• Educational leadership
• Public school compliance	• Education quality and continuous improvement in learner outcomes
• Inputs	• Outcomes
• Funding mechanisms limit options	• Funding leveraged more effectively regionally

Appendix F
Determining High-Leverage Policy

The Policy Commission used its deeper understanding of education transformation to target its policy work on aspects of the Vermont education system that we felt provided the highest leverage for positive change. We analyzed why the High Schools on the Move and School Quality Standards initiatives failed to effect desired changes. We also used the policy review work conducted by the New England Secondary School Consortium (NESSC) to help us target our policy recommendations. NESSC contracted with the University of Connecticut's Center for Education Policy Analysis to review secondary level policies in Maine, New Hampshire, Rhode Island, and Vermont to determine what led to high-leverage policies. They identified three critical success factors leading to policy actions that yield the best potential to effect fundamental systems change:

- **Pressure points** – focus on points of leverage within the system that can bring about fundamental change in organizational behavior that improve desired outcomes.

- **Policy design** – factors that contribute to potential of policy to produce the desired effects (e.g., policy mechanisms/instruments, pressure and support, policy scope and clarity, and coherence within and across policy contexts)

- **Policy implementation** – elements that contribute to the successful execution of policies and the achievement of their desired intent. Such elements include research-driven and practice-tested policy, district leadership, local capacity, local will, stability, and communication and sense-making of policy intent.

Combining our understanding of education transformation and the NESSC policy analysis, we decided that a policy has potential to be high leverage IF:

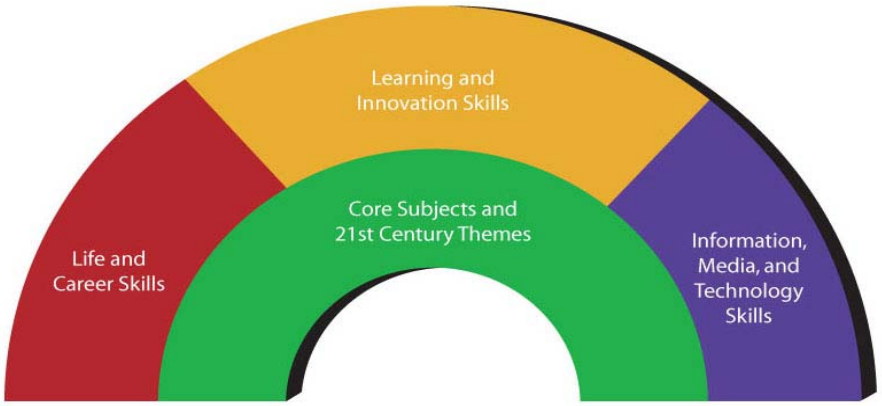
1. It has a high probability of increasing learner achievement of the broadened set of knowledge and skills essential for success in the 21st century.
2. It would tend to close the socioeconomic achievement gap among learners.
3. It addresses a significant pressure point in the system that can bring about fundamental change and trigger other transformations that challenge education to reinvent itself and achieve better outcomes for learners.
4. It incorporates policy design and implementation factors/elements that support its successful execution (e.g. incentives, fit with capacity and political will, scope and clarity of policy, force of accountability, funding)

From this work, we identified the most powerful, high-leverage pressure points for system transformation that can increase learner achievements and outcomes.

High-Leverage Pressure Points	
Learning Expectations	Redefine learning standards so they are aligned with 21st century performance demands and are fewer, higher, and deeper.
Student Assessments	Align assessments with 21st century skills and shift when and how assessments are conducted.
Teaching & Learning Practices	Establish a teaching and learning model that emphasizes deeper learning, in-depth interdisciplinary applications, and required proficiency demonstrations, and require proficiency-based grading and graduation.
Personalized Learning	Establish a flexible education system that can support each learner to achieve at high levels.
Educator Quality	Design educator licensing, professional development, career ladders, evaluation, and working conditions to support transformed educational practice.
Systems & Structures	Establish governance, funding, policies, and learning structures to support 21st century education goals and practices.
Postsecondary Connections	Align PK-16 learning pathways and blend secondary and postsecondary learning experiences. Establish proficiency-based secondary graduation requirements and align secondary graduation requirements with postsecondary entry requirements.

APPENDIX G

The Partnership for 21st Century Skills describes their model of learning expectations as:



Core Subjects
Arts
Economics
English, reading, or language arts
Geography
Government & Civics
History
Mathematics
Science
World Languages

21st Century Themes
Civic Literacy
Financial, economic, business, entrepreneurial literacy
Global Awareness
Health Literacy

Learning and Innovation Skills

- **Creativity and Innovation** – the ability to think and work creatively and implement innovations
- **Critical Thinking and Problem Solving** – the ability to reason effectively, use systems thinking, make judgments and decisions, and solve problems
- **Communication and Collaboration** – the ability to communicate clearly and collaborate with others

Information, Media and Technology Skills

- **Information Literacy** – the ability to access, evaluate, use, and manage information
- **Media Literacy** – the ability to analyze and create appropriate media
- **ICT (Information, Communications & Technology) Literacy** – the ability to apply technology as a tool to research, organize, evaluate, and communicate

Life and Career Skills

- **Flexibility and Adaptability –** the ability to adapt to change and be flexible
- **Initiative and Self-Direction –** the ability to manage goals and time, work independently, and be self-directed learners
- **Social and Cross-Cultural Skills** – the ability to interact effectively with others and to work effectively in diverse teams
- **Productivity and Accountability** – the ability to manage projects and produce results
- **Leadership and Responsibility** – the ability to guide, lead, and be responsible to others

When the 21st Century Partnership model is compared with others developed in the last 10 to 15 years, great overlap is found concerning what skills are needed by new generations.

	SCANS 1991	BHEF 1997	enGauge 2002	P21 2007
Information and Media Literacy	X		X	X
Communication Skills	X	X	X	X
Critical Thinking/Systems Thinking	X	X	X	X
Problem ID/Formulation/Solution	X	X	X	X
Creativity and Intellectual Curiosity	X		X	X
Interpersonal and Collaborative Skills	X	X	X	X
Self-Direction	X		X	X
Accountability and Adaptability	X	X	X	X
Social Responsibility			X	X
Global Awareness		X	X	X
Financial, Economic, Business Literacy			X	X
Civic Literacy			X	X

Public forums and surveys conducted with the general public show similar consensus (80% in a 2007 survey conducted by Partnership) that what learners need to know and be able to do has changed dramatically and that education has not responded to these new learning expectations. Seventy-four percent of those surveyed indicated that education should give equal emphasis to core academics and the interdisciplinary skills. **There is a substantial gap between how important the general public perceives each skill to be and how well they believe schools are actually teaching that skill.**

	% Important	% Doing Well
Computer and tech skills	87	48
Reading comprehension	85	22
Critical thinking and problem solving	80	18
Written communications	78	17
Oral communications	77	16
Ethics and social responsibility	75	15
Creativity and innovation	73	19
Teamwork and collaboration	73	20
Lifelong learning and self-direction	72	12
Media literacy	67	15
Mathematics	66	26
Global awareness	66	13
Leadership	66	17
Science	62	20

Figure 1 | How Important Are Various Skills/Practices for Experienced Workers and New Entrants to the Workforce Today Compared With Two Years Ago? (HR Professionals) – Ranked from Highest to Lowest

1. Adaptability/flexibility
2. Critical thinking/ problem solving
3. Leadership
4. Professional work ethic
5. Teamwork/ collaboration
6. Information technology
7. Creativity/ innovation
8. Diversity
9. Written communication
10. Ethical/social responsibility
11. Lifelong learning
12. Oral Communication
13. Health & wellness
14. Reading comprehension
15. Globalization

Source: Critical Skills Needs and Resources for the Changing Workforce (SHRM and WSJ.com/Careers, 2008)

Appendix H

Vermont State Board of Education
Education Policy Commission

PERSONALIZED LEARNING PLANS

Rationale/Background:

> *"The key to this transformation is not to standardize education but to personalize it, to build achievement on discovering the individual talents of each child, to put students in an environment where they want to learn and can naturally discover their true passions."* Ken Robinson, Ph.D. 2009

Every learner, regardless of his/her passion, interest and eventual path in life, needs to acquire foundational skills and knowledge. In addition, however, each learner should be able to discover how he/she is intelligent and develop his/her skills, knowledge, and talents in an area of interest. The Vermont Transformation is designed to ensure every learner has the opportunity to have diverse experiences and explore many of the possibilities the world has to offer. A Personalized Learning Plan [PLP] addresses how each learner will progress throughout his/her education to meet the requirements of graduation.

Recommended PLP Components

1. Each learner is required to have a PLP that addresses age-appropriate learning opportunities that reflect the learner's skill levels, interests, and learning styles. As the learner progresses in age, he/she will have more direction over the PLP in conjunction with his/her parents and teachers.

2. Each learner, after the Foundational phase, will have a mentor of his/her choice to support the development and implementation of their PLP. This mentor may, but does not have to, be a professional educator.

3. Each PLP, after the Foundational phase, shall be approved by a panel that includes the learner's mentor, at least one professional educator, at least one person from the community knowledgeable in the learner's focus area (when appropriate), and the chair of the panel who shall be trained for this position and may be a member of the guidance department. Other panel members may be included according to a process established by the district.

4. Each PLP at the level of focused inquiry shall contain all of the following required components:

    a. depth of mastery in a focus area chosen by the learner

    b. at least one college course or comparable postsecondary experience

    c. an outline of the courses and experiences the learner will engage in during the final phase of public education [These experiences may take place at any school, higher education institution, or community venue in the education district. Requests to include experiences outside of the education district shall be considered and accommodated whenever feasible.]

    d. demonstration of college readiness

    e. demonstration of mastery of all foundational skills and knowledge defined in the revised Vermont Framework of Standards

    f. details of how the learner will demonstrate completion of the PLP and therefore qualify to graduate

5. Each district shall establish local policy and procedures to ensure that the PLP is effectively implemented and used. Such policy should include expectations for

    - what monies the district shall make available to support PLP learning experiences,
    - criteria by which the PLP will be initially approved,
    - how frequently the learner meets with his/her mentor for feedback and assistance,
    - how frequently the PLP panel should meet to assess learner progress,
    - how a learner requests a review of his/her PLP work,
    - how the panel shall assess the learner's completion of the PLP, and
    - when the PLP must be completed prior to graduation.

Appendix I

"A Day in the Life"
Two Sample Learners in a Transformed Education System
Kyle Weinreich

Chelsea

Chelsea begins her day by walking her younger brother to school. The school he attends is very similar to a kindergarten or preschool environment where social development is considered of equal value to academic development. After dropping her brother off, Chelsea goes to her first class of the day. She arrives a little early to talk with her **algebra teacher**; last night Chelsea had e-mailed her teacher about some homework she didn't quite understand, and they arranged to meet before class. The class is a typical small group with approximately 15 to 20 students. They work together and with the help of the teacher on a worksheet of parabola problems. As learners finish the work they talk to the teacher, get their homework for the night, and head out. The next class for Chelsea is a meeting with her mentor, a **biologist** from the Echo center, to talk about the various questions and observations Chelsea has from the last time they met. Chelsea is exploring her interest in marine biology by working at Echo. After her meeting with her mentor, she assists the scientists in their research, taking notes for them; she also studies their research and writes notes and questions for the next time she sees her mentor. When the researchers break for lunch Chelsea heads to the neighboring school and meets with her **literary mentor** in the library. Chelsea is studying literature from a different perspective. This is something that Chelsea was not very excited about at first, but she has found it to be very interesting. Currently she is studying the work of South American authors and learning about the untold history of the region. Her mentor is a retired UVM professor who has traveled in South America. Today Chelsea hands in her latest piece comparing the works of two of the authors she has been reading, and she and her mentor go over the paper in detail looking at the grammar, flow, and clarity. All of these are areas that Chelsea needs work on and areas that are **emphasized in the standards** she is working to meet with the study. Chelsea goes to lunch in the school cafeteria and catches up with her friends who are talking about their day, the varsity basketball team's latest game, and their plans for the weekend. After lunch Chelsea walks home carrying a laptop she has signed out from the school's library. On it is a language program; she is going to spend the afternoon working on studying **Spanish at her own pace** through computer- and Internet-based courses. She works on the Spanish program at home, completing two lessons. Next Chelsea meets up with a DJ at a local radio station where she runs her own show from 3:00 to 4:00, and afterward she **works with another DJ** to learn more about music and radio broadcasting. After that Chelsea goes home and relaxes.

Josh

Every day Josh goes down to the local **arts studio** to start his day. Today he works on the painting that he started the day before of the mountains he can see out the window. The studio director comes over. "For someone who hates painting like you do, you are doing an amazing job."

"If I'd known how much fun it would be I probably would've started sooner."

"Can I help you with anything?" she asks, looking at a patch of poorly done shading.

"Well… I still can't seem to get the shading right around the trees but I know what I'm doing wrong."

"There's a trick to shading. It's not about straight lines smudged, so don't just make a line."

"Okay…like this?"

"Perfect! If you need anything else give me a yell."

Josh continues to paint for about an hour and a half, filling in the finer details and working on the shading around the trees. When he leaves, he heads to the offices of a **local architect** where he is applying his recently discovered artistic skills and learning the concepts of geometry and trigonometry. After he finishes his work with the architect, he heads to the **school computer lab** to work on a writing piece for his college course, an introduction to business writing. After he finishes his second draft, he finds **his TA**, who happens to be an English teacher, and they go over the draft before lunch. His TA also checks in with him about how all of his other classes and learning experiences are going. Then they discuss the questions he will use in his interview later that day. After lunch, Josh heads back to the computer lab and signs out a laptop, which he takes to one of the workspaces in the school to work on his Java **programming course**. He listens to a **recorded lecture** from his teacher and begins to work on writing a program that will take user input and solve basic math problems. At 2:30, Josh saves his work on the program and heads to the library where he meets a **group of six students** from his current issues class in Montpelier to prepare their interview questions for Senator Smith. When the senator arrives they set out a digital recorder and begin recording their interview so they can play it back later and write up the transcripts. After the interview Josh heads down to the soccer field for soccer practice.

These are the accounts of two students meeting the same standards in two very different ways, each in the manner that best supports his or her individual learning style.

Appendix J

Brief History of Dual Enrollment in Vermont

In 1989, Vermont Academy of Science and Technology (VAST) was established at Vermont Technical College (VTC) and subsequently was funded in part through the general state support grant to schools. This program enables high school seniors to enroll in courses at VTC and complete high school while earning a full year of college credits.

Since 2000, the Vermont State Colleges (VSC), in partnership with high schools, career/technical centers, the Department of Education, and other postsecondary institutions, have worked to expand dual enrollment opportunities for the full range of Vermont high school students. In 2005, seed funding was secured through the U.S. Department of Education with support from Senator James Jeffords. In 2006, through a partnership with VSAC, funding to expand the program was secured through Vermont's federal Gear-Up grant. In 2008, Vermont appropriated funding to the VSC through the Next Generation Initiative to expand the statewide dual enrollment program, including access to colleges outside the VSC that voluntarily agree to be reimbursed at a tuition rate lower than regularly charged, thus subsidizing the program. These external partners currently include the University of Vermont, St. Joseph's College, Champlain College, Burlington College, New England Culinary Institute, and Southern Vermont College. Recently, Community College of Vermont received funding from the Vermont Community Foundation to help expand this program to rural schools. Only through leveraging multiple sources of funding and support – federal, state, college/university subsidy, and private – has the program grown.

The VSC Dual Enrollment Program allows high school students to earn college credit while still in high school or the summer after they graduate. Successful high school students have earned anywhere from 3 to 18 college credits – reducing the time it takes to get a college degree, reducing the costs associated with college, and challenging themselves through college-level curriculum. The design of the statewide dual enrollment provides many pathways for high school students to start earning college credit.

Introduction to College Studies (ICS) is a 26-hour CCV course designed to help students develop strategies for college success. ICS is offered tuition-free at all 12 CCV sites every fall and spring semester, at selected CCV sites during the summer, and at other VSC colleges on a rotating basis. Enrollment in ICS has grown significantly over the past four years, from 263 in fall 2005 to 684 in spring 2009. Students who successfully

complete ICS receive a voucher for one tuition-free course at any of the Vermont State Colleges or partner institutions listed above, including the University of Vermont.

Dual Enrollment Accelerated Programs are designed for high school students who are academically prepared to enroll in a college-level course and could benefit from that experience without enrolling in Introduction to College Studies first. High school students who can demonstrate college readiness have access to one tuition-free college course at any of the Vermont State Colleges or partner institutions external to the VSC. Over the last few years, use of ICS vouchers and high school student enrollment in college courses through the accelerated program have increased from 174 in summer 2008 to 555 in summer 2009.

Students who enroll in selected programs at their local Career/Technical Center may also earn college credit tuition free through the *Fast Forward Program*. Each of the 17 Vermont Technical or Comprehensive High Schools currently has dual enrollment agreements in place or is working on future agreements. In spring 2009, there were 202 Career/Technical Center students taking college courses through CCV and 158 through VTC.

As noted above, VTC also hosts the *Vermont Academy of Science and Technology (VAST),* a full-year alternative to the senior year of high school for motivated high school seniors and home-schooled students who have a successful academic record and strong interest in math, science, and technology. VAST students take standard college courses at VTC to complete the senior year of high school and the freshman year of college simultaneously, tuition-free. VAST serves approximately 40 students through sites in Randolph Center and Williston. Other local arrangements exist whereby high school students can take college courses; for example, Middlebury College allows a limited number of local high school students to audit a college course for free (they do not receive college credit).

APPENDIX K

Sample of 13 Education Districts

District	Towns	Former Supervisory Union/Dist.	Secondary Schools	Elementary Schools	Approximate Public School Enrollment
1 Franklin/GI	Alburg Bakersfield Berkshire Enosburg Falls Fairfield Franklin Fairfax Fletcher Georgia Grand Isle Highgate Isle LaMotte Montgomery North Hero Richford Sheldon South Hero St. Albans City St. Albans Town Swanton	Franklin NE Franklin NW Franklin W Franklin Cent Grand Isle	5 public 1 approved independent 2 tech ctr	21 public 1 approved independent	9,400
2 Chittenden	Bolton Buel's Gore Burlington Charlotte Colchester Essex Jct. Essex Town Hinesburg Huntington Jericho Milton Richmond Shelburne South Burlington St. George Underhill ID Underhill Town Westford Williston Winooski	Burlington SD Colchester SD Essex Town Milton SD Chittenden C Chittenden E Chittenden S So. Burlington Winooski SD	8 public 5 approved independent 2 tech ctr	41 public 7 approved independent	21,500
3 Addison	Addison Bridport Bristol Cornwall Ferrisburgh Lincoln Middlebury Monkton New Haven Panton Ripton Salisbury Shoreham Starksboro Vergennes Waltham Weybridge	Addison NE Addison NW Addison Cent	3 public 1 tech ctr	16 public 3 approved independent	5,000

4 Rutland	Benson Brandon Castleton Chittenden Clarendon Fair Haven Goshen Hubbardton Ira, Leicester Mendon Middletown Springs Orwell, Pittsford Poultney Proctor Rutland City Rutland Town Shrewsbury Sudbury Tinmouth Wallingford Wells West Haven West Rutland Whiting	Addison Rut Rutland S Rutland NE Rutland Cent Rutland SW Rutland City	7 public 2 approved independent 1 tech ctr	22 public 1 approved independent	8,420
5 Bennington	Arlington Bennington Danby, Dorset Glastenbury Manchester Mt. Tabor North Bennington Pawlet, Pownal Rupert, Sandgate Shaftsbury Sunderland Woodford	Battenkill Valley Benning/Rutland SoWest VT	2 public 2 approved independent 1 tech ctr	14 public 4 approved independent	4,560
6 Lamoille	Belvidere Cambridge Craftsbury Eden, Elmore Greensboro Hardwick Hyde Park Johnson Morristown Stannard, Stowe Waterville Wolcott Woodbury	Lamoille N Lamoille S Orleans SW	5 public 1 approved independent 1 tech ctr	16 public 1 approved independent	4,620
7 Washington	Barre City Barre Town Berlin, Cabot, Calais, Duxbury East Montpelier Fayston Marshfield Middlesex Montpelier Moretown Plainfield Waitsfield Warren Waterbury Worcester	Barre SU Montpelier SD Washington C Washington NE Washington W	6 public 2 approved independent 1 tech ctr	17 public 4 approved independent	8,360

8 South Central VT	Bethel Braintree Brookfield Chelsea Granville Hancock Northfield Orange Pittsfield Randolph Rochester Royalton Roxbury Sharon Stockbridge Strafford Tunbridge Washington Williamstown	Orange N Orange SW Orange Windsor Washington S Windsor NW	7 public 1 approved independent 1 tech ctr	18 public	4,200
9 NEK North	Albany Averill Avery's Gore Barton Bloomfield Brighton Brownington Brunswick Canaan Charleston Coventry Derby Ferdinand Glover Holland Irasburg Jay Lemington Lewis Lowell Morgan Newport City Newport Town Norton Orleans Troy Warner's Grant Warren's Gore Westfield Westmore	Essex N North Country Orleans Cent	3 public 1 tech ctr	19 public 1 approved independent	4,370
10 NEK Orange	Barnet Bradford Burke Concord Corinth Danville East Haven Fairlee Granby Groton Guildhall Kirby Lyndon Lunenburg Maidstone Newark Newbury	Caledonia Cent Caledonia No St Johnsbury SD Essex Caledonia Orange East Blue Mtn SD Rivendell	5 public 6 approved independent 2 tech ctr	22 public 2 approved independent	5,310

	Peacham Ryegate Sheffield St. Johnsbury Sutton Thetford Topsham Vershire Victory Waterford Walden Wells River West Fairlee Wheelock				
11 Windsor North	Barnard Bridgewater Hartford Killington Norwich Pomfret Reading Woodstock	Windsor Cent Hartford SD SAU 70	3 public 3 approved independent 1 tech ctr	13 public 1 approved independent	4,800
12 Windsor South	Andover Baltimore Cavendish Chester Hartland Landgrove Londonderry Ludlow Mt. Holly Peru Plymouth Springfield Weathersfield West Windsor Weston Windsor	Windsor SE Windsor SW Springfield SD Rutland Windsor	4 public 1 approved independent 1 tech ctr	15 public 1 approved independent	4,300
13 Windham	Athens Brattleboro Brookline Dover Dummerston Grafton, Guilford Halifax, Jamaica Marlboro Newfane Putney Readsboro Rockingham Searsburg Somerset Stamford Stratton Townshend Vernon Wardsboro Westminster Whitingham Wilmington Windham Winhall	Windham Cen Windham NE Windham SE Windham SW	4 public 5 approved independent 1 tech ctr	27 public 7 approved independent	5,860
STATE	260	60	82 public 29 approved independent	260 public 33 approved independent	90,700

APPENDIX L

Sample of 20 Education Districts

District	Towns	Former Supervisory Union/Dist.	Secondary Schools	Elementary Schools	Approximate Public School Enrollment
1 Franklin North	Bakersfield Berkshire Enosburg Falls Fairfield Franklin Highgate Montgomery Richford St. Albans City St. Albans Town Sheldon Swanton	Franklin NE 20 Franklin NW 21 Franklin C 23	4 public 1 approved independent 2 tech ctrs	13 public 1 approved independent	6,900
2 Chittenden Grand Isle	Alburg Essex Jct. Essex Town Fairfax Fletcher Georgia Grand Isle Isle LaMotte Milton North Hero South Hero Westford	Chittenden C 13 Essex 59 Franklin W 22 Grand Isle 24 Milton 10	3 public 1 tech ctr	17 public	8,320
3 Chittenden C	Burlington Colchester So. Burlington Winooski	Colchester 7 Winooski 17 Burlington 15 SoBurlington16	4 public 4 approved independent 1 tech ctr	19 public 5 approved independent	9,200
4 Chittenden S	Bolton Charlotte Hinesburg Huntington Jericho Richmond St. George Shelburne Underhill Williston	Chittenden E 12 Chittenden S 14	2 public 2 approved independent	13 public 2 approved independent	6,,900
5 Addison	Addison Bridport, Bristol Cornwall Ferrisburgh Lincoln Middlebury Monkton New Haven Panton Ripton Salisbury Shoreham Starksboro Vergennes Waltham Weybridge	Addison NE 1 Addison NW 2 Addison C 3	3 public 1 tech ctr	16 public 3 approved independent	5,000

6 Rutland Central	Proctor Rutland City Rutland Town West Rutland	Rutland City 40 Rutland C 37	1 public 1 approved independent 1 tech ctr	7 public 1 approved independent	3,600
7 Rutland N	Benson Brandon Castleton Chittenden Fair Haven Goshen Hubbardton Leicester Mendon Orwell Pittsford Sudbury West Haven Whiting	Addison Rut 4 Rutland NE 36	2 public	11 public	3,130
8 Rutland S	Clarendon Danby Ira Middletown Spr Mt. Tabor Pawlet Poultney Shrewsbury Tinmouth Wallingford Wells	Rutland S 33 Rutland SW 38 Bennington/ Rutland 6 (partial)	3 public	10 public	2,120
9 Bennington	Arlington Bennington Dorset Glastenbury Manchester N. Bennington Pownal Readsboro Rupert Sandgate Searsburg Shaftsbury Somerset Stamford Sunderland Woodford	BattenkillValley 60 Bennington/ Rutland 6 (partial) SouthWestVT 5 Windham SW 49 (partial)	2 public 3 approved independent 1 tech ctr	14 public 4 approved independent	4,300
10 Lamoille	Belvidere Cambridge Craftsbury Eden Elmore Greensboro Hardwick Hyde Park Johnson Morristown Stannard Stowe Waterville Wolcott Woodbury	Lamoille N 25 Lamoille S 26 Orleans SW 35	5 public 1 approved independent 1 tech ctr	16 public 1 approved independent	4,620

11 Washington East	Barre City Barre Town Cabot Marshfield Orange Plainfield Washington Williamstown	Barre SU 61 Orange North 29 Washington NE 41	4 public 1 approved independent 1 tech ctr	7 public 2 approved independent	4,380
12 Washington West	Berlin Calais Duxbury Fayston East Montpelier Middlesex Montpelier Moretown Waitsfield Warren Waterbury Worcester	Montpelier SD 45 Washington C 32 Washington W 42	3 public 1 approved independent	13 public 2 approved independent	4,740
13 South Central VT	Bethel Braintree Brookfield Chelsea Granville Hancock Northfield Pittsfield Randolph Rochester Royalton Roxbury Stockbridge Tunbridge	Windsor NW 50 Orange SW 28 Washington S 43 Orange Windsor 30 (partial)	6 public 1 approved independent 1 tech ctr	13 public	3,020
14 NEK North	Albany Averill Avery's Gore Barton Bloomfield Brighton Brownington Brunswick Canaan Charleston Coventry Derby Ferdinand Glover Holland Irasburg Jay Lemington Lewis Morgan Newport City Newport Town Norton Orleans Troy Warner's Grant Warren's Gore Westfield Westmore	Essex N 19 North Country 31 Orleans Cent 34	3 public 1 tech ctr	18 public 1 approved independent	4,260

15 NEK South	Barnet Burke Concord Danville East Haven Granby Guildhall Kirby Lyndon Lunenburg Maidstone Newark Peacham St. Johnsbury Sheffield Sutton Victory Walden Waterford Wheelock	Caledonia C 9 St. Johnsbury 11 Essex/Caledonia18 Caledonia N 8	2 public 4 approved independent 1 tech ctr	12 public 2 approved independent	2,980
16 Bradford	Bradford Corinth Fairlee Groton Newbury Ryegate Thetford Topsham Vershire Wells River West Fairlee	Rivendell 146 Orange E 27 Blue Mtn 57	3 public 2 approved independent 1 tech ctr	7 public	2,330
17 Windsor North	Hanover Hartford Norwich Sharon Strafford	Hartford 54 SAU 70 (Norwich) Orange Windsor 30 (partial)	2 public 2 approved independent 1 tech ctr	9 public	3,870
18 Windsor Central	Barnard Bridgewater Hartland Killington Pomfret Quechee Reading Weathersfield West Windsor Windsor Woodstock	Windsor SE 52 Windsor C 51	2 public 1 approved independent	10 public 1 approved independent	2,330
19 Windsor South	Andover Athens Baltimore Bellows Falls Cavendish Chester Grafton Landgrove Londonderry Ludlow Mt. Holly Peru Plymouth Rockingham Springfield Westminster Weston	Windham NE 47 Springfield 56 Windsor SW 53 Rutland Windsor39	4 public 1 approved independent 1 tech ctr	16 public 1 approved independent	4,300

20 Windham	Bellows Falls Brattleboro Brookline Dover Dummerston Guilford Halifax Jamaica Marlboro Newfane Putney Stratton Townshend Vernon Wardsboro Whitingham Wilmington Windham Winhall	Windham SW 49 (partial) Windham C 46 Windham SE 48	4 public 5 approved independent 1 tech ctr	19 public 7 approved independent	4,400
TOTAL	260	60	82 public 29 approved independent	260 public 33 approved independent	90,700

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