Youth and Adults Transforming Schools Together

CURRICULUM GUIDE

SECTION 1, MODULE B

Why Change Schools?

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MODULE B

Why change schools?

This module grounds an understanding of WHY schools need to change. We know that any efforts to remodel schools should start with an answer to this question, before launching into specific change ideas. These activities will help stakeholders develop their “mental models” of education and learning in order to promote understanding and support for school change efforts. Importantly, these activities are designed to move stakeholders from an individualistic view of education (which often leads to blaming), to one where education is understood as a collective effort.

These activities are an entry into a deeper exploration of YATST members’ own educational philosophy. It is important that YATST team members be able to articulate why their efforts are important, if this work is to be authentic.

ENDURING UNDERSTANDINGS

• The purpose of school is to benefit society
• As the world changes, so too must schools
• Neuroscience of learning informs education

ESSENTIAL QUESTIONS

• What is the role of schools in society?
• Why remodel high schools?
• What is the complexity of our “new world” and what does this mean for learners?
• What is the role of research in shaping educational practice and policy?
ACTIVITY 1

‘Shaping Our Future Together’
Gallery Walk

PURPOSE: This activity introduces participants to the mission of education as shaping our shared future, allowing the opportunity to articulate why this is important from a personal perspective.

TIME: 25 minutes

MATERIALS

• Marketplace quote stations (nine posters shown starting on page 6; you can also download high-quality quote posters at yatst.com)

FACILITATOR NOTES

• Choose the number of quote stations that will best serve your number of participants.
• Doubling up the quotes at some stations may be helpful to ensure you have 2–3 participants at each station for discussion.

ACTIVITY

Step 1: Hang the quote stations around the room.

Step 2: Participants move to the station that, “Best clarifies for YOU how education helps us to shape our future together.” (5 minutes)

Step 3: Have participants talk with others at that station about why they chose this station. (5 minutes)

Step 4: Ask each station to report out the varied reasons individuals went to that particular station, as well as any common themes. (10 minutes)

Step 5: Concluding Statement. Could be posted or read aloud:

Because the purpose of education is to ensure a successful future for our community (state, country and world) we must rally together as a society to continually remodel education in keeping with our ever-changing world. If we fall into the trap of blaming certain stakeholders (students, teachers, parents) for challenges we will be straying from our goal. The heart of our opportunity is to shape our future together.
EXTENSION

As a group, discuss: What might be similar or different to how people saw the role of the individual in society 200 years ago? What is the role of the individual to society now and in the future? And what is the responsibility of schools regarding the role of society to the individual now and in the future?

Be the Buzz!

WAYS TO SHARE THESE QUOTES AND IMAGES

- Enlarge posters, put up around the school (including the bathrooms) and switch locations every few days
- Ask the local newspaper to use the saying and/or image on a weekly basis
- Put the posters on the school’s website, in your school newsletter, in sports programs, on the back of game tickets, start a student assembly with a few quotes to kick off discussion and voice
- Create a slide show for your local public access TV channel using these quotes/images with student music
- Tweet the quotes
- Put them on your Facebook page
- Create a display at Town Meeting
- Put them up around the community

BE CREATIVE!
"The reason why many of our students do not do better in schools is not that they are deficient or that their teachers are incompetent or uncaring; the reason is that these students do not see the relevance of such learning to altering and improving their immediate lives in their communities.

If the central goal of schools were to prepare students to engage productively in a democracy, then students would be working on the concerns of their immediate and future life and on the concerns of their immediate and extended communities.

—Carl Glickman
Our Founding Fathers viewed a well educated citizenry as central to the maintenance of our Republic.

They also viewed the ‘Public Happiness’ of citizen participation in our self-goverment as a self-evident part of the ‘Pursuit of Happiness’ that they declared to be a right of all Americans.

Such participation involves not only voting but also serving the community and working constructively to make this a “More Perfect Union”

-Harris Wofford
“Let us think of education as the means of developing our greatest abilities, because in each of us there is a private hope and dream which, fulfilled, can be translated into benefit for everyone and greater strength for our nation.”

-John F. Kennedy, Jr.
Once individuals link together they become something different... Relationships change us, reveal us, evoke more from us.

Only when we join with others do our gifts become visible, even to ourselves.

-Margaret Wheatley & Myron Kellner-Rogers
Turning to One Another

There is no power greater than a community discovering what it cares about.

Ask “What’s possible?” not “What’s wrong?” Keep asking.

Notice what you care about.
Assume that many others share your dreams.

Be brave enough to start a conversation that matters.
Talk to people you know.
Talk to people you don’t know.
Talk to people you never talk to.

Be intrigued by the differences you hear.
Expect to be surprised.
Treasure curiosity more than certainty.

Invite in everybody who cares to work on what’s possible.
Acknowledge that everyone is an expert about something.
Know that creative solutions come from new connections.

Remember, you don’t fear people whose story you know.
Real listening always brings people closer together.

Trust that meaningful conversations can change your world.

Rely on human goodness. Stay together.

—Margaret Wheatley, “Turning to One Another,” 2002
“It really boils down to this: that all life is interrelated. We are all caught in an inescapable network of mutuality, tied into a single garment of destiny. Whatever affects one destiny, affects all indirectly.”

-Martin Luther King, Jr.
“When you learn, teach, when you get, give.”

-Maya Angelou
“Real education should educate us out of self into something far finer--into a selflessness which links us with all humanity.”

-Nancy Astor, The first woman in British Parliament.
EDUCATE AND INFORM THE WHOLE MASS OF THE PEOPLE. ENABLE THEM TO SEE THAT IT IS THEIR INTEREST TO PRESERVE PEACE AND ORDER, AND THEY WILL PRESERVE THEM...THEY ARE THE ONLY SURE RELIANCE FOR THE PRESERVATION OF OUR LIBERTY.

-THOMAS JEFFERSON
ACTIVITY 2

Dialogue About School Change: Quote Activities

PURPOSE: To engage all participants in a discussion about core concepts in education redesign (e.g., aligning schools with current marketplace demands, what we know about effective teaching practices and how the brain learns, what a redesigned school looks like, etc.). Quotes are often an inspiring and safe means to set the stage for further discussion. This activity ensures that every participant contributes to the conversation in a small group context, which jumpstarts an engaging session.

TIME: Approximately 10 minutes per quotes theme page, dependent on group size

MATERIALS

- Quotes from the following theme pages (starting on page 17) that you choose:
  - Education: The collective perspective
  - Why schools need to change
  - Learning
  - The power of authentic youth engagement

FACILITATOR PREPARATION

- Choose a quote theme for your dialogue based on your session goals and select quotes that align with this goal. Copy and cut the quote offerings up into individual slips of paper.
- Choose one of the two effective means to have participants engage in dialogue about these quotes. Close with the Reflection Questions.
- Complete this multiple times, one time for each theme.

ACTIVITY

A. Quote of Your Choice:

Create a “framing question” for participants to consider (e.g., Which quote best captures why you think schools needs to change? Which quote best captures a belief about education that you strongly agree with? etc.)

Let individuals pick their quote from a wide variety of offerings.

Circle up and have each individual read the quote and share why they chose that particular one.
B. Quote That Chooses You

Put all the quotes in a container so that people can choose their own.

Have the group circle up and ask each person to take one quote, without looking at it. Offer 1-2 minutes for participants to consider the quote they have taken and what meaning it has to them.

Ask participants to read the quote out loud and share why that quote “chose them”. What is meaningful about the quote from their perspective?

Reflection Questions:

- What was it like to do this activity?
- What did you learn from listening to the quotes and reflections?
- What have you learned from this activity?
Quotes: EDUCATION: THE COLLECTIVE PERSPECTIVE

“Education is the most powerful weapon which you can use to change the world.”
—Nelson Mandela

“Real education should educate us out of self into something far finer – into a selflessness which links us with all humanity.”
—Nancy Astor

“Education, then, beyond all other devices of human origin, is the great equalizer of the conditions of men — the balance-wheel of the social machinery.”
—Horace Mann

“Education, in its broadest sense, is the means of the social continuity of life.”
—John Dewey

“It really boils down to this: that all life is interrelated. We are all caught in an inescapable network of mutuality, tied into a single garment of destiny. Whatever affects one directly, affects all indirectly.”
—Martin Luther King Jr., 1967

“Education is a human right with immense power to transform. On its foundation rests the cornerstones of freedom, democracy and sustainable human development.”
—Kofi Atta Annan, seventh secretary-general of the United Nations

“Education is the transmission of civilization.”
—Ariel and Will Durant
“Let us think of education as the means of developing our greatest abilities. Because in each of us there is a private hope and dream which, fulfilled, can be translated into benefit for everyone and greater strength for our nation.”

—John F. Kennedy

“The good education of youth has been esteemed by wise men in all ages, as the surest foundation of the happiness of both private families and of commonwealths.”

—Benjamin Franklin

“Of all the civil rights for which the world has struggled and fought for 5,000 years, the right to learn is undoubtedly the most fundamental.”

—W. E. B. DuBois

“The fact remains that the whole country is directly interested in the education of every child that lives within its borders. The ignorance of any part of the American people so deeply concerns all the rest that there can be no doubt of the right to pass laws compelling the attendance of every child at school.”

—Frederick Douglass, African American writer and abolitionist, 1888

“What the best and wisest parent wants for his own child, that must be what the community wants for all children. Any other ideal for our schools is narrow and unlovely; it destroys our democracy.”

—John Dewey
**Quotes: WHY SCHOOLS NEED TO CHANGE**

“The reason why many of our students do not do better in schools is not that they are deficient, or that their teachers are incompetent or uncaring; the reason is that these students do not see the relevance of such learning to altering and improving their immediate lives in their communities. If the central goal of schools were to prepare students to engage productively in a democracy, then students would be working on the concerns of their immediate and future life and on the concerns of their immediate and extended communities.”

—Carl Glickman, Renewing America’s Schools, 1993

“The realities of today’s economy demand not only a new set of skills but also that they be acquired by all students.”

—Tony Wagner, 2006

“Employees must know how to solve more complex problems more quickly, and must create new goods and services if they are to add significant value to virtually any business or nonprofit organization, no matter what size. And those who don’t have these skills are not being hired.”

—Tony Wagner, 2006

“The new mission of schools is to prepare students to work at jobs that do not yet exist, creating ideas and solutions for products and problems that have not yet been identified, using technologies that have not yet been invented.”

—Linda Darling-Hammond, 2011

“During much of the 20th century, most workers held two or three jobs during their lifetimes. However, the US Department of Labor estimates that many of today’s workers will hold more than 10 jobs before they reach the age of 40.”

—Linda Darling Hammond, 2011

“It means finally making good on the unmet American promise that education will be made available to all on equal terms, so that every member of this society can realize a productive life and contribute to the greater welfare.”

—Linda Darling Hammond, 2011
“An estimated 85 percent of current jobs and almost 90 percent of the fastest-growing and best-paying jobs now require postsecondary education. Even today’s manufacturing jobs now largely require postsecondary training and skills.”

—Tony Wagner, 2008

“The average performance of systems is not the most important factor; rather, the gap between low and high performers is... The problem of inequality is becoming more pronounced and more entrenched decade by decade... a social time bomb.”

—Michael Fullan

“There will be a great appetite for the new way. Passion, purpose, and the new pedagogy are natural winners because they tap into and activate what is human—doing something intrinsically meaningful and of value to oneself, one’s peers, and the world at large.”

Michael Fullan

“In the United States, we built a system to educate people to live in an industrial culture, and it was successful in its time. That system remains in place, which means we are now using a system that was designed to meet the needs of a world that no longer exists.”

—Ray McNulty

“When people build a system to accomplish something, such as education or healthcare, it must be continuously cultivated. Systems fail when the people within them don’t manage them to meet changing demands. Without stewardship - not merely to sustain, but to renew - any system will fail despite the efforts of the people within it.”

—Ray McNulty

“Since the invention of PET scans in the 1970s, knowledge of what is involved in the brain has been doubling every seven years. Eighty percent of what we now know about the brain has been discovered only in the last twenty years.”

—J Abbott & H MacTaggart, 2010
“All human beings are born with unique gifts. The healthy functioning of any community depends on its capacity to develop each gift. When we hold a newborn we do not see a smart or dumb kid. We see the miracle of life creating itself. The loss of that awareness is the greatest toll exacted by our prevailing system of education, in and out of school.”

—Peter Senge, 2000

“By continuing to prop up the industrial-age concept of schools through teacher-centered instruction, learning as memorizing, and extrinsic control we are preparing students for a world that is ceasing to exist.”

—Peter Senge, 2000
Quotes: LEARNING

“Learning is the only thing the mind never exhausts, never fears, and never regrets.”
—Leonardo da Vinci

“I am still learning.”
—Michelangelo

“If you can’t explain it simply, you don’t understand it well enough.”
—Albert Einstein

“Education is not the learning of facts, but the training of the mind to think.”
—Albert Einstein

“The best way to learn is to do; the worst way to teach is to talk.”
—Paul Halmos

“Change is the end result of all true learning.”
—Leo Buscaglia

“Tell me and I forget. Teach me and I remember. Involve me and I learn.”
—Benjamin Franklin

“In every mistake there is the potential for growth.”
—Albert Einstein

“Once you stop learning you start dying.”
—Albert Einstein
“Remain curious and keep learning.” —Nourma Fauziyah

“Learning how to learn is one of the most important skills in life.” —Nourma Fauziyah

“Play is the highest form of research.” —Albert Einstein

“The world is the true classroom. the most rewarding and important type of learning is through experience, seeing something with our own eyes.” —Jack Hanna

“Experience is simply the name we give our mistakes.” —Oscar Wilde

“If we bring our entire brain into learning, we will find control passing from others to ourselves. We will know what we need for further learning and we will take charge of getting it rather than remaining dependent on others. Our own brain will begin to give the orders. We will move from a position of weakness and dependence to one of strength and independence.” —James Zull, The Art of Changing the Brain
Quotes: THE POWER OF AUTHENTIC YOUTH ENGAGEMENT

“Fostering student voice — empowering youth to express their opinions and influence their educational experiences so that they feel they have a stake in the outcomes is one of the most powerful tools schools have to increase learning.”

— Toshalis & Nakkula

“What would happen if we treated the student as someone whose opinion mattered in the introduction and implementation of reform in schools? If meaning matters to the success of teachers and principals, it doesn’t take much imagination to realize that meaning is central to student success.”

— Michael Fullan

“There is no better engine to pull the train of school reform than student voice, and once it picks up steam it is difficult to derail — a fact that will be unmistakable as this work unfolds.”

— Nelson Beaudoin

“When young people discover they can be agents of change, wonderful things happen. They start to serve in the neighborhoods, learn about public issues, create innovative solutions to tough public challenges and eventually become the voters, community project builders and leaders in our communities and nation.”

— Alma Powell

“If the central goal of schools were to prepare students to engage productively in a democracy, then students would be working on the concerns of their immediate and future life and on the concerns of their immediate and extended communities.”

— Carl Glickman

“There is something fundamentally amiss about building and rebuilding an entire system without consulting at any point those it is designed to serve.”

— Alison Cook-Sather
“Motivation to engage wholeheartedly in a task is reinforced when people feel they have had some choice in selecting the task and/or understand its rationale. Children, as well as adults, are more likely to resist an activity that holds little meaning or relevance for them or they feel was arbitrarily imposed. It has been my experience that if most members of a school community perceive that they have limited input into what transpires in that community, the motivation to teach and to learn will be compromised.”

—Robert Brooks

“There’s a radical — and wonderful — new idea here . . . that all children could and should be inventors of their own theories, critics of other people’s ideas, analyzers of evidence, and makers of their own personal marks on the world. It’s an idea with revolutionary implications. If we take it seriously.”

—Deborah Meier

“There are numerous reasons to believe that engaging students is a critical step in improving schools. Foremost, engagement will almost certainly improve learning outcomes.”

—F. Jowslowsky

“Hope is something shared between teachers and students…. [when] we can learn together, teach together, be curiously impatient together, produce something together, and resist together the obstacles that prevent the flowering of our joy.”

—Paulo Freire

“The natural outcome of having high expectations for youth, for viewing youth as resources and not as problems, is the creation of opportunities for them to be contributing members of their community.”

—Bonnie Bernard

“There are a growing number of organizations that pointedly recruit and develop young people as key players in problem solving for organizational functioning, community development, and larger social change. In these settings, young people are asked to assume responsibility for trying to improve the organizations and environments they will inherit.”

—Karen Pittman
“The stories that youth tell us in the meetings change the decision making in ways that are totally unexpected. They tell us things like, ‘we are the statistics,’ and ‘we are living the life so listen to what we are saying.’”

—adult board member of a youth-serving organization

“Youth leadership that is not only allowed but encouraged by adults leads to new discoveries.”

—student participant in collaborative peer review

“Kids will rise to the occasion. Give them more responsibility and they’ll take it.”

—student participant in Collaborative Peer Review
ACTIVITY 3

Sir Ken Robinson’s Video: ‘Changing Education Paradigms’

PURPOSE: This video is an excellent way to introduce a group to the history of education and justify why change is so important at this time. The cartoon format is novel and engaging. The video is an excellent catalyst for dialogue.

TIME: 20 minutes minimum (video is 5:51, plus follow-up dialogue)

MATERIALS
- The video, “RSA Animate: Changing Education Paradigms”: youtube.com/c/upforlearning (see Section 1 Module B playlist). Video has been edited to focus on key points to inform YATST work.
- Notepaper and pen for all participants
- Transcript of edited version (page 28; optional)

ACTIVITY

Step 1: Introduce and watch video. Provide an introduction highlighting that the video will provide a fast-moving and fact-filled overview of why education remodeling efforts are important. Encourage participants to jot down (or underline in the transcript) points that they find particularly memorable or thought provoking throughout the video.

Step 2: Provide two minutes to allow participants to consolidate or reflect on key take-aways from the video.

Step 3: Reflection questions:
- What rang true for you in this video given your school experiences?
- What points stood out for you in this video regarding reasons why schools need to change?
- What were the issues raised that surprised you?
- What questions did this video raise for you?
- What new understandings do you want to remember regarding education redesign?
- What do you want to know more about?

Step 4: Final reflection question: How would you summarize for a neighbor why schools need to remodel or change? Share your response with a partner.
Sir Ken Robinson: “Changing Education Paradigms” (edited version)

Every country on earth at the moment is reforming public education. There are two reasons for it.

The first of them is economic. People are trying to work out, how do we educate our children to take their place in the economies of the 21st century. How do we do that? Even though we can’t anticipate what the economy will look like at the end of next week, as the recent turmoil has demonstrated. How do you do that?

The second though is cultural. Every country on earth is trying to figure out how do we educate our children so they have a sense of cultural identity, so that we can pass on the cultural genes of our communities. While being part of the process of globalization, how do you square that circle? The problem is they are trying to meet the future by doing what they did in the past.

And on the way they are alienating millions of kids who don’t see any purpose in going to school. When we went to school we were kept there with the story, which is if you worked hard and did well and got a college degree you’d have a job. Our kids don’t believe that, and they are right not to by the way.

You are better having a degree than not, but it’s not a guarantee anymore. And particularly not if the route to it marginalizes most of the things that you think are important about yourself.

Some people say we have to raise standards if there is to be a breakthrough. You know... really. Yes, we should. Why would you lower them? You know...I haven’t come across an argument that persuades me to lower them. But raising them, of course we should raise them.

The problem is that the current system of education was designed and conceived and structured for a different age. It was conceived in the intellectual culture of the Enlightenment, and in the economic circumstances of the Industrial Revolution.

Before the middle of the nineteenth century there were no systems of public education. Not really, you’d get educated by Jesuits if you had the money.

But public education paid for from taxation, compulsory to everybody and free at the point of delivery, that was a revolutionary idea. And many people objected to it. They said it’s not possible for many street kids, working class children to benefit from public education. They are incapable of learning to read and write and why are we spending time on this?

So there was also built into the whole series of assumptions about social structuring capacity. It was driven by an economic imperative of the time, but running right through it, was an intellectual model of the mind, which was essentially the Enlightenment view of intelligence.

The real intelligence consisted in this capacity for certain type of deductive reasoning, and a knowledge of the Classics originally, what we’ve come to think of as academic ability. And this is deep in the gene pool of public education.

There are really two types of people. Academic and non academic. Smart people and non smart people. And the
consequence of that is that many brilliant people think they are not, because they've been judged against this particular view of the mind.

So we have twin pillars, economic and intellectual.

And my view is that this model has caused chaos in many people's lives. And it's been great for some - there've been people who benefited wonderfully from it, but most people have not.

But the model we have is this. It's I believe we have a system of education which is modeled on the interest of industrialism. and in the image of it. I'll give you a couple examples. Schools are still pretty much organized on factory lines. On ringing bells, separate facilities, specialized into separate subjects.

We still educate children by batches. You know, we put them through the system by age group. Why do we do that? You know, why is there this assumption that the most important thing kids have in common is how old they are. You know, it's like the most important thing about them is their date of manufacture. Well I know kids who are much better than other kids at the same age in different disciplines. You know, or at different times of the day, or better in smaller groups than in large groups or sometimes they want to be on their own.

If you are interested in the model of learning you don't start from this production line mentality. This is essentially about conformity. Increasingly it's about that as you look at the growth of standardized testing and standardized curricula. and it's about standardization. I believe we've got to go in the exact opposite direction. That's what I mean about changing the paradigm.

We have to think different about human capacity. We have to get over this old conception of academic, non-academic. Abstract, theoretical, vocational and see it for what it is: a Myth.

Second, we have to recognize most great learning happens in groups. That collaboration is the stuff of growth.

If we atomize people and separate them and judge them, we form a kind of disjunction between them and their natural learning environment.

And thirdly, it's crucially about the culture of our institutions. The habits of institutions and the habitats that they occupy.
ACTIVITY 4

Introduction to the 21st Century: Shifts Happen

PURPOSE: Explore the impact of the dramatic changes in the world on education.

TIME: 45 minutes

MATERIALS

- Shifts Happen: Brain Twister handout for each person
- Writing implements for everyone
- Web access to view YouTube video “Shifts Happen Edited for UP”: youtube.com/c/upforlearning (see Section 1 Module B playlist).
- Speakers to assure good audio

FACILITATOR NOTES

- It is important to highlight that the purpose of the following activity is to explore how changes in the world impact our schools. Although changes in technology are highlighted in the video, the purpose is not to start a conversation about technology itself, but rather its implications for how we prepare young people for this rapidly changing world. If time allows, fold in the next activity which identifies 21st Century Skills as an immediate follow-up to make this point.
- If you are using this with a teaching or administrative audience, consider reading and sharing pieces of the following: ed421.com/?s=Shift%20Happens%3B%20Now%3F. This blog highlights that the answer to the technology advances highlighted in “Did You Know” is NOT more technology. “This is really about changing adult perspectives and adult behaviors to create student-centered classrooms that exemplify research-based best practices around learning.”

ACTIVITY

Step 1: Introduce the concept of 21st-century skills and how it is a rationale for why schools need to change to prepare students for the 21st century. Explain that we will first explore how different (or not) this new century really is. After all, each generation has adapted to new innovations and changes. Right? Why is this century any different?

Step 2: Ask participants to pair up with another person — preferably someone of a different generation or someone that they don’t know. Pass out Shifts Happen: Brain Twister and a writing implement, one to each pair. Explain that we will begin by exploring the 21st century with some current information. The first step will be for each pair to take the Brain Twister. THIS IS NOT A TEST. It will not be graded! No one will see your answers. It is
just a way to open the door to understanding what all the 21st century buzz is all about. (7-10 minutes)

**Step 3:** Explain that a short five-minute YouTube video has been created which reviews many of the points on the Brain Twister . . . at a fairly rapid pace. Ask participants to watch carefully to find the correct answers.

**Step 4:** Create groups of 4–6 people to discuss the following questions:

- What are the implications of these shifts for me as an individual?
- What does this mean for the way schools work? What should change look like?

**Step 5:** Ask each small group to share some insights for each question, doing a round with the first question and then moving to the second question.
Shifts Happen: Brain Twister

Circle or write in the answer you think makes sense for each question.

The Top 10 in-demand jobs in 2013 did not exist in....


The U.S. Department of Labor estimates today’s learner will have ___ jobs before they turn age 38.

1–3  4–6  7–9  10–14

For the first time in history we have ___ generations working side by side.

one  two  three  four

The number of Google searches done on a monthly basis is:

500 million  100 billion  250 billion  300 billion

After Google, YouTube is the second largest search engine in the world. Every MINUTE, ___ hours of video are uploaded to YouTube.

12  24  36  48

If Facebook were a country (based on the number of users), it would be the ____ largest country in the world.

35th  3rd  64th  9th

The number of married couples who met online in 2013 was:

1 out of 15  1 out of 12  1 out of 6  1 out of 3

Think about the time it takes from when a product is created to when there are 50 million people using it. Now guess how many years it took for each of these major inventions to reach the 50 million users mark.

Radio: ___ years  TV: ___ years

Internet: ___ years  iPod: ___ years  Facebook: ___ years
How many hours of Netflix are streamed daily?

- 7 million
- 30 million
- 22 million
- 19 million

How many hours of Pandora?

- 7 million
- 19 million
- 22 million
- 30 million

How many new books are published EACH DAY?

- 1,000
- 4,000
- 6,000
- 10,000

Given the rate at which new technology is becoming obsolete, when a person is halfway through a four-year technology training program, how much of what they learned in the first year will be outdated?

- 10%
- 25%
- 50%
- 100%

How many devices will be connected to the internet by 2020?

- 25 billion
- 50 billion
- 100 billion
- 200 billion
Shifts Happen: Brain Twister
ANSWERS

The Top 10 in-demand jobs in 2013 did not exist in 2004.

The U.S. Department of Labor estimates today’s learner will have 10–14 jobs before they turn age 38.

For the first time in history we have four generations working side by side.

The number of Google Searches done on a monthly basis is: 100 billion

After Google, YouTube is the second largest search engine in the world. Every MINUTE, 24 hours of video are uploaded to YouTube.

If Facebook were a country (based on the number of users), it would be the 3rd largest country in the world.

The number of married couples who met online in 2013 was: 1 out of 6

Think about the time it takes from when a product is created to when there are 50 million people using it. Now guess how many years it took for each of these major inventions to reach the 50 million users mark:

Radio: 38  TV: 13  Internet: 4  iPod: 3  Facebook: 2

22 million hours of Netflix are streamed daily, and 19 million hours of Pandora.

4,000 new books are published EACH DAY.

Given the rate at which new technology is becoming obsolete, when a person is halfway through a four-year technology training program, 50% of what they learned in the first year will be outdated.

50 billion devices will be connected to the internet by 2020.
ACTIVITY 5

What Are the Skills That Matter Most in a Changing World?

PURPOSE: This activity is designed to help explore the key skills that matter most in a changing world, and allow everyone to thrive today and into the future. These skills are driving schools around the country to redesign how they educate students. This activity is designed to open one’s mind to re-imaging education.

TIME: 50 minutes

MATERIALS

• Handout “What are the new core skills that matter most in a changing world?”
• Web access to view Teaching Channel “Deeper Learning Series Overview”: teachingchannel.org/videos/deeper-learning-a-series-overview

FACILITATOR NOTES

• Step 4 depends on the size of your group. If it is a small group (8–12 or less), you could do a go-around, asking people to name the three skills that schools already address fairly well. If the group is large, or you just want to make sure everyone has an opportunity to share, create small groups of 2–4 to discuss each question.
• If time is or becomes a factor, the video in Step 5 could be stopped after approximately 5 minutes 30 seconds, before the example schools.

ACTIVITY

Step 1: Share handout “What are the new core skills that matter most in a changing world?”

Step 2: Provide directions. Give folks 5 minutes to review handout and identify. Ask them to read and underline or highlight:

• Three skills that you feel schools already address fairly well.
• One skill that schools rarely address directly.
• One skill that you believe is the most important to build in our school to prepare students for our changing world.

Step 3: Report out each participant’s responses to the three skills that schools already address fairly well. Follow with similar response go-arounds for the next two questions (record responses as is appropriate to the size of the group and time limitations, or consider using post-its to record and organize responses).
Step 4: Ask for reflection between each round or at the end of the three rounds, exploring the following questions:

- Are opinions on how schools address core skills similar to or different from one another?
- Are there common threads or concerns in terms of what is being raised through our observations?
- Do you agree that these are the skills needed to allow everyone to thrive today and into the future?
- Have you experienced developing these skills?
- Do you see these skills being emphasized and developed in our school?
- How could these skills be further cultivated and emphasized in our school?
- How do changes in Vermont legislation (Act 77) open the door for this skill development? (See Activity 9 overview)

Step 5: Watch “Deeper Learning Series” Overview Video with Tony Wagner’s introduction. Address the discussion questions again, but emphasize how the schools highlighted develop these key skills. Compare this to your school.

EXTENSIONS

The web site p21.org is worth visiting and printing out one copy of the P21 Framework Definitions. This is a slightly more in-depth overview of the summary sheet provided.
What are the core skills that matter most in a changing world?

The goal of competency-based learning is to ensure that students are acquiring the knowledge and skills that are considered to be essential to thriving and being successful in school, higher education, careers, and adult life. Below is a list of key skills, according to Tony Wagner, a leading educational innovator.

To thrive today and in the future, the most important outcomes for students are to:

- Think critically and solve complex problems
- Work collaboratively
- Communicate effectively, orally and through writing
- Learn how to learn
- Develop an academic mindset
- Understand content knowledge in core subjects: English, reading, language arts, world languages, arts, math, economics, science, geography, history, government & civics
ACTIVITY 6

Too Many Sitting

PURPOSE: Highlight that the work of YATST is to reach those most disengaged from learning, and that these numbers are too high. It also prompts questions concerning stereotypes about those who drop out (disengagement rather than ability).

TIME: 20 minutes

MATERIALS

- 10 note cards, each with a number 1 through 10 written on it
- The four statistics highlighted below, either posted or as handouts (see page 41)

ACTIVITY

Step 1: Ask for 10 volunteer students to stand up front in a straight row. Give each a number, 1 through 10. Now ask numbers 1 through 5 to sit down. Then note:

- Those left standing are the ones who believe their voices make a difference and may or may not choose to use them to influence their schools.
- Those sitting are the ones who do not believe they have a say in decisions that are made at their schools.

STATISTIC: 53% of students in Vermont report that they do not have a say in decisions that are made at their schools. (Youth Risk Behavior Survey, 2013)

Step 2: Explain: Those sitting become passive recipients of their education. They are at risk of disengaging. They may also become bored and resistant. They do not perceive they have value in the system. When students are not given an opportunity to voice their opinions and know that these opinions will be valued, there is a powerful implicit message that “You are not wise enough or mature enough to be a meaningful player in your own education.” This message can greatly undermine a person’s sense of worth and motivation.

Step 3: Ask participants to show agreement by giving a thumbs-up, thumbs to the side or thumbs-down to show if this statistic makes sense in what they know or see at school. No discussion needed. However, if you do discuss share an agreement that the names of students will not be shared.

Step 4: Highlight: TOO MANY SITTING!

Step 5: Have all 10 students stand up again. Ask 1, 2, 8, 9 and 10 to sit down.

- Those left standing are the ones who feel hopeful about their future.
• 1 and 2 are the students who are “discouraged” about their future;
• 8, 9 and 10 report feeling “stuck” with few choices.

**STATISTIC:** 54% of students in a national poll reported that they were hopeful about their future, 32% reported feeling “stuck” and 14% were discouraged. (Gallup Student Poll of 600,000 students, Fall 2013)

**Step 6:** Explain: Hope was studied in the Gallup poll because it has a major influence on grades, achievement scores, retention and employment. “Hope scores are more robust predictors of college success than are high school GPA, SAT and ACT scores.” Think about hope and how it influences your life and those of your peers,... what does it feel like to wake up and feel positive about the future versus a day where you may feel like there is no future out there for you — and often no way to influence that sense of reality.

**Step 7:** Ask participants to show agreement by giving a thumbs-up, thumbs to the side or thumbs-down to show if this statistic makes sense in what they know or see at school. No discussion needed. However, if you do discuss share an agreement that the names of students will not be shared.

**Step 8:** Highlight: TOO MANY SITTING!

**Step 9:** Have all 10 students stand up again. Ask 3 and 4 to sit down. Ask 5, 6 and 7 to kneel.

• Those left standing feel engaged in school (involved and enthusiastic)
• 5, 6 and 7 feel disengaged from school; 3 and 4 feel actively disengaged from school

**STATISTIC:** In a national poll of students, 55% reported that they are engaged in school. 28% reported being “disengaged” and 17% were “actively disengaged”. (Gallup Student Poll of 600,000 students, Fall 2013)

**Step 10:** Explain: Note that the number one reason that students drop out of school is that they report it is boring and not relevant to their lives. Dropping out is NOT linked to their intelligence or their potential. ALL students have a capacity to learn. Rather, it is linked to factors of engagement like positive relationships with teachers, high expectations for ALL students, and curriculum that has meaning in their lives.

Too often disengaged students have gotten the subtle (or not so subtle) messages that they don’t have potential — systems that track students to lower and higher levels do this — with devastating results. When a person knows that others have low expectations, they often believe the message that they are not capable and perform accordingly. The reverse is true when we have high expectations for ALL students and students are encouraged to believe in their potential and capacity, they achieve.

Vermont has one of the best graduation rates or four-year completion rates in the country at 86.6%. However, out of the 10 standing, at least one, and at times, more like two, will not make it through high school.

**Step 11:** Ask participants to show agreement by giving a thumbs-up, thumbs to the side or thumbs-down to show if this statistic makes sense in what they know or see at school. No discussion needed. However, if you do discuss share an agreement that the names of students will not be shared.

**Step 12:** Highlight: TOO MANY SITTING”
Step 13: Have all ten students stand up again. Ask 7, 8, 9, and 10 to sit down.

- Those standing feel they have a voice in their education entering middle school.

Ask students 4, 5, and 6 to sit down.

- Those standing feel they have a voice in their education by the end of high school.

STATISTIC: While a clear majority of students (61%) believe they have a voice upon entering middle school, one third (37%) say they do by twelfth grade (QISA, 2013). (Russell Quaglia and Michael Corso, Student Voice: The Instrument of Change, p.2)

Step 14: Explain: “The more our students mature, the less opportunity they have to offer their opinions and participate as leaders in meaningful ways. This finding from our work — that students experience less voice the longer they are in school — has not adequately found its way into our local, state, or national conversations and indicates we have a long way to go toward including students as partners in their education.” (Russell Quaglia and Michael Corso, Student Voice: The Instrument of Change, p.2)

Step 15: Ask participants to show agreement by giving a thumbs-up, thumbs to the side or thumbs-down to show if this statistic makes sense in what they know or see at school. No discussion needed. However, if you do discuss share an agreement that the names of students will not be shared.

Step 16: Highlight: TOO MANY SITTING!

Step 17: Close by reinforcing that our YATST work is focused on those who were sitting. Reflection questions:

- What was it like to watch this stand up-sit down piece? What feelings did it provoke? Why?
- Which of these statistics feels “truest” or “most compelling” for you? Why?
- Do you have any friends or classmates you can think of who concern you because they seem to match this data? (Protect students from naming names)
- Other than students, whom does this data affect? How?
- What group(s) in your school might benefit from seeing “too many sitting”?

EXTENSIONS: EXPLORE DATA

- Vermont Public School Dropout and High School Completion Report: education.vermont.gov/data/dropout-and-high-school-completion
- Gallup Student Poll: gallupstudentpoll.com
- Youth Risk Behavior Survey Data, Vermont Department of Health: healthvermont.gov/research/yrbs.aspx
- YATST survey data for your school (when possible)
Too Many Sitting!

**STATISTIC:** 53% of students in Vermont report that they do not have a say in decisions that are made at their schools. (Youth Risk Behavior Survey, 2013)

**STATISTIC:** 54% of students in a national poll reported that they were hopeful about their future, 32% reported feeling “stuck” and 14% were discouraged. (Gallup Student Poll of 600,000 students, Fall 2013)

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ACTIVITY 7

Chalk Talk: How can research about learning help us remodel our schools?

PURPOSE: This exercise explores compelling reasons why schools need to change based on what we now know about learning due to neuroscience of learning breakthroughs. The silent dialogue Chalk Talk process promotes engagement by all participants as they learn about current research and apply it to their own remodeling efforts. This activity also reinforces the 4 Rs framework, with research clustered by each of the Rs.

TIME: 1 hour

MATERIALS

- 4 large pieces of art paper (approximately 3’ x 4’)
- Markers for each of the 4 stations (dependent on size of group)

FACILITATOR NOTES & PREPARATION

- Create four Chalk Talk stations — Relevance, Relationship, Rigor, and Shared Responsibility — using the main points on pages 46–49, with the same central question for each piece of paper: “How can this research about learning inform school redesign efforts?”
- If time is limited, pick one or two points per R category instead of three.
- Chalk Talk stations work best when there are no more than eight to 10 individuals per station, and no less than four. If you have more than 40 participants or less than 16, consider adapting this activity by making two Chalk Talk stations.
- Another approach that could be used to stimulate lots of generative thinking in a very short time is using the text as a basis for rotating partner discussion called a Wagon Wheels Adapted for Texts protocol.
- The research/quotes provided for this activity can be adapted to meet the needs of your group. Not all quotes have to be used for the activity to be meaningful. However, you should have information from all 4 Rs.

ACTIVITY

Step 1: Introduce the activity: This exercise explores some key research findings that can help us shape our school remodeling efforts. You will have the opportunity to silently dialogue about current research and how this can shape remodeling efforts. Discover and share the themes that emerge. Share the following quote to introduce this striking reality:
Eighty percent of what we now know about the brain has been discovered only in the last twenty years. We seem to be on a roller coaster of a knowledge explosion.


**Step 2:** Explain the process of Chalk Talk (see page 50). Allow 10 minutes per station.

**Step 3:** Create equally sized groups for each of the stations and have groups rotate stations. They should then stop at their last station and assume responsibility for reflecting, discussing and reporting out:

**Chalk Talk Reflection Questions:**

- What themes do you see emerging from your particular Chalk Talk?
- How can this help shape school remodeling efforts?
- How does this learning research align (or not) with Act 77: Flexible Pathways legislation? (Optional)

**ALTERNATE ACTIVITY:** Wagon Wheel Sequence

**FACILITATOR PREPARATION**

- Arrange your chairs in the wagon wheel configuration (see protocol on page 51) and provide the four pages of prompts you have chosen (one for each R)
- Put these overarching questions up in an obvious place or add them to the prompt pages:
  1. What are the implications of this research fact relative to learning?
  2. How might classroom practices be guided by this research?

**SUGGESTED TIMING:** For each leg of the wagon wheel spoke (dyad).

- 30 seconds to introduce yourself to your partner and settle in
- 1 minute to read the prompt silently
- 1.5 minutes per person to talk about their response to the prompt, referencing the overarching questions noted above
- 1 minute in silence to write down any conclusion you have drawn or thoughts you want to remember

**REFLECTION QUESTION OPTIONS**

- Did any of these research facts surprise you or stand out for you? Why?
- Of all four discussions you had, what one thought you or your partner discussed was most memorable? Why?
- What insights did this activity raise for you regarding school change?
Facilitator Overview of Main Points

RELEVANCE

• Current brain research shows the importance of relevance in an individual’s ability to learn and level of engagement, as well as how much learning is retained over time. Brain scans have shown that when new learning makes sense and has meaning, there is more cerebral activity and more information retention. (Maguire et al, 1999) Educational practices that increase relevance and trigger some emotional connection to the content will predictably enhance engagement and motivation, and increase long-term storage of information. (National Research Council, 2000; Medina, 2008; Bernard, 2010; Sousa, 2006)

• Positive emotions have a direct effect on attention and working memory. We are more likely to remember information if we have an emotional investment in it. (Forgas, 2006, Sousa, 2006)

• We are all born with different genetic makeup and accrue different life experiences. These differences affect what we view as relevant and how we make sense of information. (Sousa 2006) It is therefore important to create diverse educational opportunities, which allow for a wide array of perspectives on what is relevant.

RELATIONSHIPS/EXPECTATIONS

• There is a strong documented link between a teacher’s expectations of a student and the student’s performance. (Baksh, 1984, Brophy, 1983; Ormrod, 1999) When adults give up on students, students give up on themselves. Conversely, when teachers believe that each and every student is capable of high achievement, students rise to these expectations.

• Current brain research has revealed the neuroplasticity of the brain and its ability to grow with use, dispelling a widely held myth that certain people are “smart” and others are not, based on erroneous stereotypes and assumptions. Current research by Blackwell, Trzesniewski and Dweck (2007) supports the importance of reinforcing the capacity of each student’s learning potential or “growth mindset.”

• When an individual is feeling stressed, information is re-routed into an area of the brain that reacts instinctively with a “fight or flight” response. (Willis, 2009) When that happens, the brain is no longer available for learning, but is rather focusing on managing stress. According to a 2010 survey by the American Psychological Association, 43% of 13- to 14-year-olds report that they feel stressed every single day. By ages 15-17, that number rises to 59%.

RIGOR/LEVEL OF CHALLENGE

• It is clear that the negative neurologic impact of both too much and too little rigor highlights the need to tailor learning experiences to the individual’s unique window of required challenge. Too little rigor results in boredom, which is toxic to our brains. Neurotoxic boredom occurs when a learner experiences sustained boredom; this can create chronic stress.

• Too much rigor (often accompanied by repeated failure) results in blocking new information and avoidance. “People will participate in learning activities that have yielded success for them and avoid those that have produced failure.” In the case of repeated failure, the brain begins to literally block incoming information. (Sousa, 2006)
The mindset research highlights the profound influence of the belief in one's learning potential. When learners better understand their control over their intellectual development through effort, they take greater risks and responsibility in their learning and seek higher levels of challenge.

**SHARE RESPONSIBILITY**

- It is critical that the learner takes an active role in the learning process. The phrase, “the person who is doing the work is the person who is learning” best captures this neurologically validated fact. Active learning results in being better able to process, retain and transfer learning to new situations. (National Research Council 2000; Weinberger, 2008)

- When students develop the skills to predict and self-assess their learning on an on-going basis, teachers can be highly effective guides or “activators”, continually calibrating the level of challenge and relevance based on their strong relationship to the learner.

- “Fostering student voice - empowering youth to express their opinions and influence their educational experiences so that they feel they have a stake in the outcomes - is one of the most powerful tools schools have to increase learning.” (This finding came from an extensive literature review by Toshalis & Nakkula, 2012 for the “Students at the Center” series.)

**Sources**


Chalk Talk Station 1

RELEVANCE

Current brain research shows the importance of relevance in an individual’s ability to learn and level of engagement, as well as how much learning is retained over time. Brain scans have shown that when new learning makes sense and has meaning, there is more cerebral activity and more information retention.

Educational practices that increase relevance and trigger some emotional connection to the content will predictably enhance engagement and motivation, and increase long term storage of information.

Positive emotions have a direct effect on attention and working memory. We are more likely to remember information if we have an emotional investment in it.

We are all born with different genetic makeup and accrue different life experiences. These differences affect what we view as relevant and how we make sense of information. It is therefore important to create diverse educational opportunities, which allow for a wide array of perspectives on what is relevant.
There is a strong documented link between a teacher’s expectations of a student and the student’s performance. When adults give up on students, students give up on themselves. Conversely, when teachers believe that each and every student is capable of high achievement, students rise to these expectations.

Current brain research has revealed the neuroplasticity of the brain and its ability to grow with use, dispelling a widely held myth that certain people are “smart” and others are not, based on erroneous stereotypes and assumptions. Current research supports the importance of reinforcing the capacity of each student’s learning potential or “growth mindset”.

When an individual is feeling stressed, information is re-routed into an area of the brain that reacts instinctively with a “fight or flight” response. When that happens, the brain is no longer available for learning, but is rather focusing on managing stress. According to a 2010 survey by the American Psychological Association, 43% of 13- to 14-year-olds report that they feel stressed every single day. By ages 15-17, that number rises to 59%.
RIGOR

It is clear that the negative neurologic impact of both too much and too little rigor highlights the need to tailor learning experiences to the individual’s unique window of required challenge. Too little rigor results in boredom, which is toxic to our brains. Neurotoxic boredom occurs when a learner experiences sustained boredom; this can create chronic stress.

Too much rigor (often accompanied by repeated failure) results in blocking new information and avoidance. “People will participate in learning activities that have yielded success for them and avoid those that have produced failure.” In the case of repeated failure, the brain begins to literally block incoming information.

The mindset research highlights the profound influence of the belief in one’s learning potential. When learners better understand their control over their intellectual development through effort, they take greater risks and responsibility in their learning and seek higher levels of challenge.
**Chalk Talk**

**Station 4**

**SHARED RESPONSIBILITY**

It is critical that the learner takes an active role in the learning process. The phrase, “the person who is doing the work is the person who is learning” best captures this neurologically validated fact. Active learning results in being better able to process, retain and transfer learning to new situations.

When students develop the skills to predict and self-assess their learning on an ongoing basis, teachers can be highly effective guides or “activators,” continually calibrating the level of challenge and relevance based on their strong relationship to the learner.

Fostering student voice — empowering youth to express their opinions and influence their educational experience so that they feel they have a stake in the outcomes — is one of the most powerful tools schools have to increase learning.
Chalk Talk

Developed by Hilton Smith, Foxfire Fund; adapted by Marylyn Wentworth.

Purpose
Chalk Talk is a silent way to reflect, generate ideas, check on learning, develop projects, or solve problems. It can be used productively with any group — students, faculty, workshop participants, or committees. Because it is done completely in silence, it gives groups a change of pace and encourages thoughtful contemplation. It can be an unforgettable experience. Middle level students absolutely love it — it’s the quietest they’ll ever be!

Time
Varies according to need; can be from 5 minutes to an hour

Materials
Chalk board and chalk, white board and dry-erase markers, or large roll paper on the wall and chart markers

Process
1. The facilitator explains very briefly that Chalk Talk is a silent activity. No one may talk at all and anyone may add to the Chalk Talk with words or graphics as they please. You can comment on other people’s ideas simply by drawing a connecting line to the comment. It can also be very effective to say nothing at all except to put finger to lips in a gesture of silence and simply begin with Step 2.

2. The facilitator writes a relevant question in a circle on the board.
   Sample questions:
   • What did you learn today?
   • So What?, or Now What?
   • What do you think about social responsibility and schooling?
   • How can we involve the community in the school, and the school in community?
   • How can we keep the noise level down in this room?
   • What do you want to tell the scheduling committee?
   • What do you know about Croatia?
   • How are decimals used in the world?

3. The facilitator either hands a piece of chalk to everyone, or places many pieces of chalk at the board and hands several pieces to people at random.

4. People write as they feel moved. There are likely to be long silences — that is natural, so allow plenty of wait time before deciding it is over.
Wagon Wheels
Adapted for Texts

Developed by educators in the field and revised by Connie Parrish and Susan Taylor, 2012.

Purpose
To deepen understanding of a text; to explore implications for participants’ work

Note: Wagon Wheel structure may also be used to brainstorm an issue or topic. See Wagon Wheels Brainstorm.

Set-Up
- Four chairs back-to-back at the hub of the wheel and 4 chairs on the outer circle facing the chairs at the hub.
- Since this process is done in a “knee-to-knee” format without tables, it’s helpful for participants to bring reflection journals to lean against. They also bring their texts, something to write with, and perhaps some sticky notes for jotting down ideas.
- Each Wagon Wheel optimally includes 6 or 8 participants. If you have an uneven number you can hook together 2 participants on the wheel hub, which then becomes a discussion triad, rather than a pair. See examples below:

![Diagram of Wagon Wheels]

Procedural Notes
- The people on the outside of the wheel will be moving one seat to the left (or right) at each rotation; the people seated at the hub remain in their seats.
- Explain that they will be working on one guiding question or piece of text with each partner for approximately 5 minutes – i.e., they will work with 4 different partners during the activity – trying to amplify their understandings of the text and any implications from the text for their work.
- At the end of each rotation, ask each participant sitting on the outside of the wheel to rotate one seat to the left. After they settle down, give them the next question/quotations/topic and ask them to once again amplify and extend their understandings.

Protocols are most powerful and effective when used within an ongoing professional learning community and facilitated by a skilled facilitator. To learn more about professional learning communities and seminars for facilitation, please visit the School Reform Initiative website at www.schoolreforminitiative.org,
Debrief
Some ideas for structuring discussion:
• You might offer guiding questions for rounds (i.e., What was confirmed or confusing in the text? What might you consider using from the text?)
• You might identify salient quotations or direct participants to particular places in the text, one per round. At the beginning of a round, you would direct participants to a page number and quote, read it aloud, and then post it as a reminder. Participants turn to that place, read the quote, think about and then discuss it.
• It’s important to provide a moment or 2 at the beginning of each round during which participants can go back into the text. This deepens the talk.
ACTIVITY 8
The Myth of Average

PURPOSE: This activity explores the fallacy of average as an effective guiding measure in designing not only Air Force cockpits but also educational environments. Participants consider how schools can design learning to meet ALL students' needs.

TIME: 40 minutes

MATERIALS
- Average Students & Jagged Students graphic organizer, page 54

ACTIVITY

Step 1: Partner participants for a Think-Pair-Share activity.

Step 2: Think. Take two minutes to consider an average student and jot down notes on the graphic organizer. How would you define average? How would you describe facts and characteristics of the average student and the way school “works” for him or her (e.g. gets most of her homework done, etc.)?

Step 3: Pair. With a partner, take three to four minutes to discuss and add to your graphic organizer based on your discussion.

Step 4: Share. Depending on the size of the group, have each pair share out some or all of their conclusions.

Step 5: Show “The Myth of Average” TEDTalk. (This is an edited version. The full version is 18 minutes long, and focuses on the benefits of technology in the classroom.)

Step 6: Ask partners to fill out the graphic organizer exploring “jagged” students. Based on the TEDTalk, participants should come to see that there are in fact no average students.

Step 7: Discuss: What would schools look like if they were to ban the average and teach to the edges?
### Average Students

<table>
<thead>
<tr>
<th>Definition in your own words</th>
<th>Facts/Characteristics</th>
</tr>
</thead>
<tbody>
<tr>
<td>How school “works” for them</td>
<td>Other ideas...</td>
</tr>
</tbody>
</table>

### Jagged Students

<table>
<thead>
<tr>
<th>Definition in your own words</th>
<th>Facts/Characteristics</th>
</tr>
</thead>
<tbody>
<tr>
<td>How school “works” for them</td>
<td>Other ideas...</td>
</tr>
</tbody>
</table>
ACTIVITY 9
I Dream of a School...

**PURPOSE:** This activity introduces participants to the mission of education as shaping our shared future, allowing the opportunity to articulate why this is important from a personal perspective.

**TIME:** 30 minutes

**MATERIALS**
- Web access to view I Dream PSA (edited) on YouTube (1:20): youtube.com/c/upforlearning (see Section 1 Module B playlist).

**ACTIVITY**

**Step 1:** Introduce the video by explaining that a group of students and teachers at South Burlington High School decided to create a Public Service Announcement to get people thinking about education and learning—and ultimately convincing them to come to a community gathering.

**Step 2:** Share video.

**Step 3:** Create a poem for the school of your dreams. Use the sentence stems below or ask the group to generate others. This can be done as an individual activity or in pairs or small groups.

- I DREAM OF A SCHOOL (identify two special characteristics)
- I WONDER …
- I HEAR…
- I SEE…
- I WANT…
- I DREAM OF A SCHOOL (same as first line)
- I UNDERSTAND…
- I SAY…
- I TRY…
- I HOPE…
- I DREAM OF A SCHOOL (same as first line)
**Step 4:** Participants can share their own or gather the poems and have participants randomly read a poem that someone else wrote.

**EXTENSION**

Have participants script and produce their own video PSA.
ACTIVITY 10

Vermont’s Act 77: Students at the Center!

PURPOSE: This article and text-based discussion activity explores Act 77 in Vermont and explains how it creates a Flexible Pathways Initiative within the Agency of Education to expand opportunities for secondary students to complete high school and achieve postsecondary readiness.

TIME: 45 minutes

MATERIALS

- Reprints of Introduction to Act 77: education.vermont.gov/ flexible-pathways (page 58)
- Save the Last Word for Me: A School Reform Initiative Protocol (page 62). Source: Save the Last Word for Me: schoolreforminitiative.org/protocols

FACILITATOR NOTES

- A timekeeper/facilitator needs to be identified in each group, who keeps the process moving. The process is designed to build on each other’s thinking, not to enter into a dialogue. Timing is important; each round should last approximately 7 minutes.
- Act 77 provides the opportunity for each high school student to enroll in two dual enrollment courses at no expense to the student, authorizes the development of additional early college programs through which students complete 12th grade entirely on a college campus, and removes the upper age limit for participation in the High School Completion Program.

ACTIVITY

Step 1: Utilize the Save the Last Word for Me protocol (page 62) to explore this overview of Act 77.

Step 2: Debriefing questions: Was this a useful way to explore the ideas in the text and to explore your own thinking? If so, why? If not, why not?
Introduction to Act 77

HISTORICAL CONTEXT

Education reform in Vermont has a long and rich history. The most recent phase, culminating with the passage of Act 77 in 2013, can be traced through several essential documents.

High Schools on the Move, published in 2002, describes the work and conclusions of a task group charged by the State Board of Education (SBE) in 1999 with addressing “the critical issues facing Vermont high schools.” Twelve principles were identified, which remain at the heart of the reform effort today.

The Future of Education in Vermont, a 2007 publication, articulated the vision of the State Board of Education and the then Commissioner of Education. It identified five components of a desired state to be addressed: student-centered education, leadership, flexible learning environments, engaged community partners, and indicators of success.

In 2009, the Vermont Legislature developed and passed what became Act 44. This contained the first use of the phrase “Flexible Pathways to Graduation” and established the goal of a 100% graduation rate by 2020. While much of Act 44 was in session law only, it was the basis for the statutory language that would become Act 77 of 2013.

In 2011, an informal study was conducted by the Department of Education to “uncover both opportunities and challenges related to two major policy directions that are currently driving high school transformation in Vermont: flexible learning pathways and proficiency-based graduation models.” The resulting Policy Research Team Final Report offered seven “Essential Recommendations,” all of which find reference points in Act 77.

Opening the 2012 Session of the Vermont Legislature, Governor Shumlin devoted much of his State of the State Address to education issues. The vision he offered contained the elements that saw their genesis a decade earlier. The Education Committees of the House and Senate worked closely with the Department of Education to develop a bill designed to reflect the Governor’s vision. While that bill failed to pass, it did set the stage for a renewed effort the following year. Act 77 became law in July of 2013, and can be seen as the result of many years of work on the part of many Vermont citizens, educators, and policy-makers to create a policy environment designed to foster a system of public education in which every student graduates, and every graduate is college and career ready. The following describes the essential elements of Act 77: The Flexible Pathways Initiative.

FLEXIBLE PATHWAYS TO GRADUATION

The concept of flexible pathways to graduation is at the heart of Act 77, and is defined as “any combination of high-quality academic and experiential components leading to secondary school completion and postsecondary readiness, which may include assessments that allow the student to apply his or her knowledge and skills to tasks that are of interest to that student.” This does not refer to a finite menu of pre-selected pathways from which a student must choose. Rather, it implies that there may be as many unique pathways as there are students. And the components that make up each pathway are limited only by our imaginations and the resources available. That implies a need for familiarity with school-based course offerings, virtual learning opportunities, community work-based learning opportunities, and dual enrollment options.
Schools must be prepared to assign value toward the satisfaction of progression and graduation requirements to learning experiences well beyond the traditional classroom and course. Experiences through which learning occurs and can be demonstrated may be enabled to serve as the basis for value, or “credit.” This new way of looking at learning and its demonstration implies a new role for schools and educators. Understanding how to value all learning experiences against the standards to which all students are held will demand a significant practice shift.

**PERSONALIZATION**

The personalization of the educational experience has its most obvious manifestation in the requirement that all students in grades 7 through 12 will have Personalized Learning Plans (PLPs) by the 2018-19 school year. While the requirement for PLPs applies to grades 7 through 12, Act 77 also makes it clear that the Legislature believes that “personalized learning and personalized instructional approaches are critical to students in kindergarten through grade 6 as well.” It is also clear that the Legislature has placed the emphasis not on the plan as documentation, but on the planning process. The definition of PLP includes “documentation of an evolving plan developed on behalf of a student in an ongoing process involving a secondary student, a representative of the school, and, if the student is a minor, the student’s parents or legal guardian and updated at least annually by November 30.”

Personalization is also manifested through the expectation that students will be able to engage in “flexible pathways to graduation,” defined as “any combination of high-quality academic and experiential components leading to secondary school completion and postsecondary readiness.” This concept is not the same as students choosing from a limited menu of pathways pre-designed by educators. Rather, the emphasis is on “any combination of high-quality academic and experiential components.” This suggests that there may be as many unique pathways as there are students. It is the responsibility of the school representative in the planning process to ensure that successful completion of a student’s plan will result in graduation and college and career readiness.

Act 77 explicitly references several examples of experiences that may become components in a PLP. These include: “applied or work-based learning opportunities, including career and technical education and internships; virtual learning and blended learning; dual enrollment opportunities …; early college programs.” While there is an expectation that each of these categories of learning experiences will become more readily available to more students, this should not be seen as placing a limit on the possibilities for inclusion in a student’s flexible pathway to graduation.

The Agency of Education was required by Act 77 to “convene a working group to . . . support implementation of the personalized learning plan process.” That working group has met and has published on the Agency website “guiding principles and practical tools for the personalized learning plan process and for developing personalized learning plans.” Several schools were awarded grant funds for use during the winter and spring of 2014 for the purpose of testing those tools through direct use. The website will continue to evolve as a primary source of support for PLP implementation.

**WORK-BASED LEARNING**

Act 77 envisions the expansion of work-based learning (WBL) opportunities. At a minimum, this requires that schools “provide students, beginning no later than seventh grade, with career development … resources.” Historically, work-based learning opportunities have been available to Career and Technical Education (CTE) students under the direction of a licensed Co-op Coordinator. In recent years, some high schools have dedicated staff to this work.
Expansion of such opportunities to more students will require efforts on two fronts. CTE resources should be more readily available to students as PLP components without the need for a full commitment to CTE. Work-based learning opportunities should be more readily available to students through their high schools. When the latter is the vehicle for this expansion, it must be done in a way that is safe and in compliance with law and regulation. Several schools have expressed interest in pursuing this by seeking grant funds to enable training on the WBL Manual and the WBL Gold Standards. The effort will continue to ensure that all personnel facilitating WBL services are familiar with these resources.

VIRTUAL/BLENDED LEARNING

Act 77 also envisions the expansion of virtual learning opportunities (i.e. “learning in which the teacher and student communicate concurrently through real-time telecommunication” and “online learning in which communication between the teacher and student does not occur concurrently and the student works according to his or her own schedule”). It is also recognized that virtual experiences may be more valuable when blended with face-to-face instruction. The State has made significant investments in virtual learning. Specifically, schools have access to the Learning Network of Vermont (LNV) and to the Vermont Virtual Learning Cooperative (VTVLC). The former uses equipment now installed in most Vermont schools, and enables access to global learning resources. The latter offers more traditional coursework through an online platform in partnership with schools. This is an essential element if we are to take advantage of learning opportunities beyond the school building. It also implies a responsibility for ensuring that such experiences are relevant and of high quality.

DUAL ENROLLMENT

Act 77 defines dual enrollment as “enrollment by a secondary student in a course offered by an accredited postsecondary institution and for which, upon successful completion of the course, the student will receive … secondary credit … and postsecondary credit.” There was a pre-existing Dual Enrollment Program before the passage of Act 77, established and managed by the Vermont State Colleges (VSC). The new Dual Enrollment Program, created by Act 77, is the responsibility of the Agency of Education. The Agency has contracted with VSC for the management of the Program. The intent of Act 77 is to expand the availability of dual enrollment opportunities, equitably, statewide. The mechanism for accomplishing this is to encourage schools to bring college courses to the high school campus, in addition to students attending classes at a postsecondary institution. In other words, dual enrollment should not be limited to those students in close proximity to a college campus. High school juniors and seniors may access up to two vouchers for use at participating college partners (one per year). In the first two years of the program, state funds will cover the entire cost of tuition. Starting in FY2016, schools will be responsible for 50% of the tuition costs. Those costs are prescribed in Act 77, and when combined with student usage history, should be predictable. Students must be able to demonstrate their readiness for college-level coursework, and dual enrollment courses must appear in the student’s PLP. That readiness determination is to be made jointly by the secondary and postsecondary institutions.

Schools are required to provide access to eligible students. Providing access will certainly include determining eligibility, assisting eligible students in choosing courses and receiving vouchers, and transcripting college courses in compliance with the statute. In some cases it will also include arranging for college courses to be offered on the high school campus. There is also an expectation that secondary schools will collect enrollment data to be used in a longitudinal review and evaluation of the Dual Enrollment Program.
**EARLY COLLEGE**

The Early College Program established by Act 77 expands upon the VAST model. In addition to VAST (Vermont Academy of Science and Technology), a program operated by Vermont Technical College, other postsecondary public and private institutions are encouraged to develop similar programs. This will have the effect of enabling many more students to complete the 12th grade experience, earn a secondary diploma, and also complete the first year of a college experience. Because this is based on the VAST model, students are required to unenroll from high school. Unlike VAST, students at other postsecondary institutions will re-enroll in high school in order to receive a diploma. Secondary schools will therefore be responsible for helping eligible students plan for Early College (it must appear in the student’s PLP), transcripting the college experience as applicable to the satisfaction of graduation requirements, and awarding the diploma. Unlike dual enrollment, schools will not have an expense associated with Early College participants, but these students will also not be included in the school’s census.

* * *

The four categorical components referenced above all enjoy varying levels of state financial support, and are acknowledged as potential components in any student’s flexible pathway to graduation. But they should not be seen as placing a limit on what students and schools may imagine as contributing to each student’s unique experience.

As a whole, Act 77 moves Vermont’s public education system to a model based on personalization. That is, we are expected to place students at the center of the construction and implementation of their own learning experience. Our role as educators is to facilitate that experience in a way that maximizes the opportunities for students to pursue “high-quality educational experiences that acknowledge individual goals, learning styles, and abilities,” and ensures that all students graduate, and that all graduates are college and career ready.


Adapted and edited for YATST Curriculum
Save the Last Word for ME

*Developed by Patricia Averette.*

**Purpose**
To clarify and deepen our thinking about a text

**Roles**
Timekeeper/facilitator, who both participates and keeps the process moving

**Time**
Approximately 30 minutes

**Process**
- The process is designed to build on each other's thinking, not to enter into a dialogue.
- Participants may decide to have an open dialogue about the text at the end of the 30 minutes.
- Timing is important; each round should last approximately 7 minutes.

1. Create a group of 4 participants. Choose a timekeeper (who also participates) who has a watch.

2. Each participant silently identifies what she/he considers to be (for her/him) the most significant idea addressed in the article, and highlights that passage.

3. When the group is ready, a volunteer member identifies the part of the article that she/he found to be most significant and reads it out loud to the group. This person (the *presenter*) says nothing about why she/he chose that particular passage.

4. The group should pause for a moment to consider the passage before moving to the next step.

5. The other 3 participants each have 1 minute to respond to the passage — saying what it makes them think about, what questions it raises for them, etc.

6. The first participant then has 3 minutes to state why she/he chose that part of the article and to respond to — or build on — what she/he heard from her/his colleagues.

7. The same pattern is followed until all 4 members of the group have had a chance to be the presenter and to have the “last word.”

8. Optional open dialogue about the text and the ideas and questions raised during the first part of the protocol.

9. Debrief the experience. How was this a useful way to explore the ideas in the text and to explore your own thinking?

Protocols are most powerful and effective when used within an ongoing professional learning community and facilitated by a skilled facilitator. To learn more about professional learning communities and seminars for facilitation, please visit the School Reform Initiative website at www.schoolreforminitiative.org.