TeacherVision

FutureFit: The Importance of Making Students Future-Ready

Executive Summary

The vast majority of teachers will tell you they got into teaching to inspire their students and to change the world.

They want to see their students succeed not only academically, but also out in the real world; to not only survive, but thrive in an ever-changing global environment. They aspire to inspire a new generation of leaders and changemakers.

Educators strive to promote social-emotional learning and 21st-century (soft) skills, as well as the college- and career-readiness skills that teachers, businesses and students alike feel are missing from the majority of today's academic curriculum. They are eager to go beyond rote classroom work and teach to their kids' interests, while promoting real-world awareness.

But how can they when they have so much to do simply to teach to the curriculum and standards?

TeacherVision has come up with a way to include the skills that students need to succeed after high school -- creativity, perseverance, flexibility, collaboration -- as well as the social-emotional and digital fluency skills they need now into exciting, engaging, project-based lessons that teach to the curriculum and still get kids excited.

Introduction

Lisa Koplik is a 4th-grade teacher in the Wakefield school system in Massachusetts. On top of instructing her own class in math, ELA, science and social studies, she partners with another teacher and instructs that class in math.

While the number of students per class (18.1 in Wakefield and 18.6 in Massachusetts) and the student-to-teacher ratio (13.1 to 1 in Wakefield and 13.2 to 1 in Massachusetts) is average for the state, the number of economically disadvantaged, special needs, and ELL students is significantly lower than that of the rest of the state, and the rest of the nation.

Still, Lisa finds it difficult to teach beyond the required curriculum and standards, to incorporate the life skills that students lack into her everyday lessons.

That's where TeacherVision comes in. We have developed the three-tiered approach to incorporating life-, college- and career-readiness skills into core curriculum, taking the burden off of teachers and allowing them to seamlessly integrate skills like entrepreneurialism, global awareness, social-emotional skills, and creativity into the content they are already teaching every day.

"...Lisa finds it difficult to teach beyond the required curriculum and standards, to incorporate the life skills that students lack into her everyday lessons."

Problem Statement

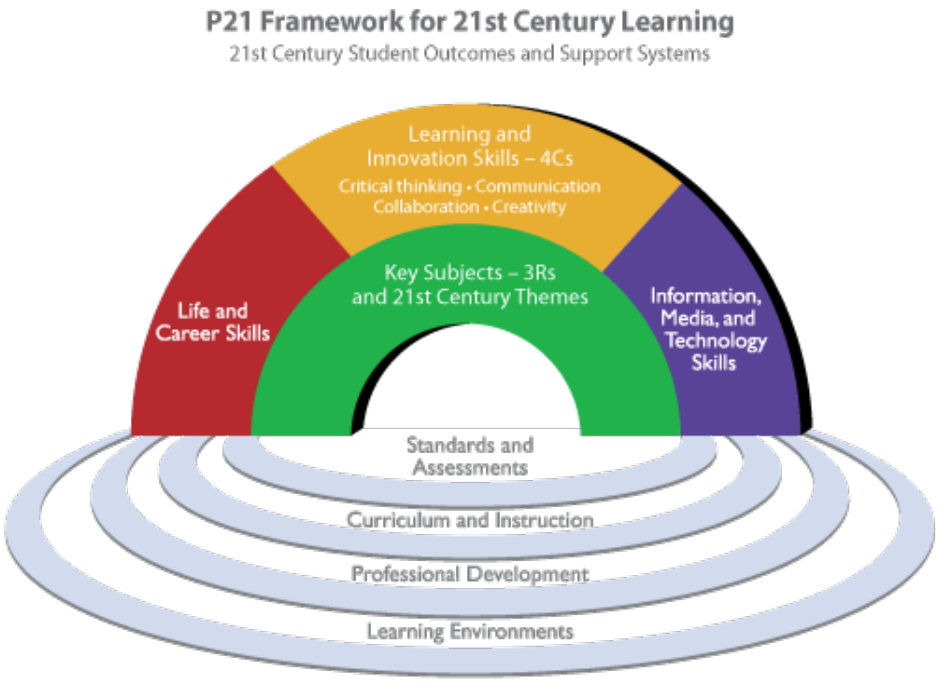
More and more, educators are being asked to weave social emotional, digital and career- and college-readiness skills into their regular curriculum.

Organizations across the country are pouring in money to support these initiatives. In July of this year, the New York-based Wallace Foundation, a philanthropic group that supports learning programs for disadvantaged children, granted six communities, including Boston Public Schools several million dollars "to expand programs that will help students develop ways to regulate their emotions and work in teams."

The initiative and money are there, as well as buy-in from many teachers.

"This is the stuff that teachers crave," says Koplik. "This is the stuff that we wish desperately was in the existing curriculum."

But, as Koplik points out, the tools to help teachers include yet another skill set into their already packed schedules are only nominally out there. For her, this is particularly true of skills related to global awareness and service.



Source: http://www.p21.org/our-work/p21-framework

Both educators and employers are keen to instill social emotional learning, as well as college- and career-readiness -- a group of skills often referred to as soft skills, or 21st Century Skills -- in their students and future employees. In addition, students must learn to adapt to the ever-changing digital landscape.

Of course, the framework for most of these skills comes from the Framework for 21st Century Learning from the Partnership for 21st Century Skills. The P21 skills and standards blend learning standards for Life and Career Skills; the 4Cs (Critical Thinking, Collaboration, Communication and Creativity); and Information, Media and Technology skills with the key subjects and the 21st Century Themes.

According to their site, the skills were "developed with input from teachers, education experts, and business leaders to define and illustrate the skills and knowledge students need to succeed in work, life and citizenship, as well as the support systems necessary for 21st century learning outcomes."

While P21 encompasses all skills students need in a new digital, global learning and work environment, the skills can be broken down into three subcategories: College- and career-readiness, digital fluency and social emotional learning.

College- and Career-Readiness

In early 2017, the Institute for the Future and Dell Technologies published a report on the future of work and tech called The Next Era of Human/Machine Partnerships. In the report, the IFTF, a think tank that predicts trends in the global marketplace, estimated that 85 percent of the jobs current students will be doing in 2030 haven't even been invented yet.

They also point out, citing the Bureau of Labor Statistics, that those learners will hold between 8 and 10 jobs by the time they are 38. Many of them will become freelancers, which are projected to make up half of the U.S. workforce by 2020.

Inevitably, workers of the future must master skills like adaptability, creativity, self-direction and entrepreneurship. According to Business and Professional Communication Quarterly, the most sought-after soft skills for employers include integrity, communication, courtesy, responsibility, interpersonal skills, professionalism, positive attitude, teamwork skills, flexibility, and work ethic.

Next Generation Learning Challenges (NGLC), a Bill and Melinda Gates Foundation initiative, has created their MyWays project, a framework of competencies to prepare students for learning, work and life. They focus their curriculum on four areas: Habits of Success, Creative Know-How, Wayfinding Abilities and Content Knowledge. Through those four areas, students explore various skills domains:

Source: https://www.dropbox.com/s/jd7inrqfo5fhpx9/MyWaysIntroduction_20170410.pdf?dl=0

Frameworks and skills sets abound in the education world, and everybody understand the importance of teaching to them. The challenge for teachers is integrating them into their lesson plans.

And while organizations strive to get students ready for the real world, many students are struggling simply to attain the skills they need to succeed in college. According to Education Week, YouthTruth, a non-profit organization co-founded by The Bill and Melinda Gates Foundation, surveyed nearly 55,000 high school students across the country. They found that only about half felt their school had prepared them for the transition to college.

According to one survey respondent, "The things we learn help us pass tests so we can get a good grade, but we don't learn basic skills for studying that will help us survive in college."

Digital Fluency

There's no question that technology is moving faster than many of us can even grasp. L. Robert Furman, in his book The Future-Ready Challenge points out, "Just 10 years ago, we didn't have augmented reality or nanobots. Who knows what technologies will be part of our everyday lives in 5, 10, 15 years?"

And Daniel H. Pink, author of A Whole New Mind stresses, "The future belongs to a very different kind type of mind. . . . Workers will need to build on the skills of the 20th century by mastering a new and different set of skills in the 21st century."

Finally, the World Economic Forum, in their publication The Vision for Education: Unlocking the Potential of Technology points this out:

> Changes in the labour market have heightened the need for all individuals, and not just a few, to have these [21st century and digital] skills. In countries around the world, economies run on creativity, innovation and collaboration. Skilled jobs are more and more centred on solving unstructured problems and effectively analysing information. In addition, technology is increasingly substituting for manual labour and being infused into most aspects of life and work. Over the past 50 years, the US economy, as just one of many developed-world examples, has witnessed a steady decline in jobs that involve routine manual and cognitive skills, while experiencing a corresponding increase in jobs that require non-routine analytical and interpersonal skills.

It's apparent that there is more to digital fluency than simply learning how to conduct research online or how to communicate with another classroom on the far side of the world. Digitally fluent students must be adaptable, flexible, collaborative, self-starters who can take on new technology and learn how to apply it quickly.

Organizations like the International Society for Technology in Education (ISTE) have responded with publications like Furman's book, which puts forth an 18-week framework for increasing digital literacy in the classroom.

But, again, how do you weave digital fluency into an already crunched schedule?

Social Emotional Learning

The Collaborative for Academic, Social, and Emotional Learning (CASEL), the University of Illinois at Chicago, Loyola University and the University of British Columbia followed 97,406 students through 82 SEL programs, a little less than half of which were outside of the United States.

The programs varied in delivery of instruction, but they all taught at least one of CASEL's five SEL components: self-management, relationship skills, responsible decision-making, self-awareness, and social awareness.

According to CASEL, considered a leader in promoting SEL in education, these five skills integrated into classrooms, family life and communities, are an integral part of raising a whole child.

Source: http://www.casel.org/core-competencies/

They checked in with the students anywhere from 6 months to 18 years after completion. The results of their study are published in the journal Child Development. They found that regardless of school location, or socio-economic status or race of the student, the results were the same. Students with SEL training had a 6 percent better graduation rate and an 11 percent increase in college attendance and degree attainment. They were less likely to run into problems with drugs and more likely to overcome emotional distress, as well.

So, how do teachers prepare their students for a more fluid workforce while covering the core curriculum? TeacherVision has found a way with our new FutureFit™ curriculum and TeacherVision original content.

Solution: FutureFit™

TeacherVision's new FutureFit curriculum addresses the need for engaging content that addresses core curriculum needs and weaves in the soft skills teachers sometimes struggle to include in their daily lessons. We do this through our FutureFit Skills, a set of nine skill domains that help teachers navigate to content that includes soft skill; Hub-and-Spoke planning, in which content that addresses core curriculum needs is enhanced with FutureFit resources and activities presented as differentiated instruction, and TeacherVision Original Content, project-based resources that is created by our expert teachers, and includes resources from leading organizations and businesses, using the FutureFit Skills as their guiding principle.

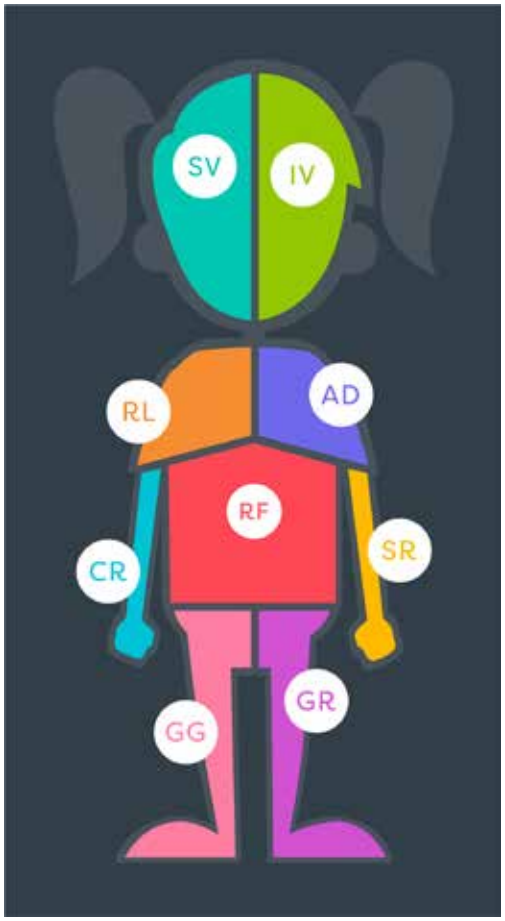
Let's delve into those three solutions further.

FutureFit Skills

The FutureFit skills are woven into our resources throughout the site. FutureFit directly addresses college- and career-readiness, digital fluency and social emotional learning through our nine skill domains: **Solve, Relate, Investigate, Reflect, Adapt, Create, Serve, Get Going and Get Real**.

Each of these skill domains contributes to the "whole child" by building skills in students that help them to be an effective worker, global citizen and valuable member of the community. We've broken down each domain into a specific set of skills. They are the building blocks of each domain.

Our 4th-grade teacher, Lisa Koplik, ran through the FutureFit skills with us. "This is the epitome of what I value as a teacher: the stuff that's going to get you far in life. They are the hub of how you live as a person in the world."



She was very happy to see the skills woven into everyday curriculum and lessons, and to have the language to help students identify the skills they would be learning.

"For them to know an additional focus is being future-ready (FutureFit), to be able to have words that would help students understand what they need to learn in the moment, to be able to talk about these big words and make it more of a real part of the classroom is would wonderful."

As we broke down the skills, Koplik commented on their use in the classroom:

SV SOLVE

Problem Solving

COMPUTATIONAL THINKING: The ability to effectively formulate and frame problem-solving strategies so that they can be applied and carried out by computers, machines, or humans

PROCESS ACUMEN: The ability to clearly and effectively define and implement replicable processes, and to communicate the associated tasks, roles and details to others

DESIGN THINKING: The ability to learn and apply techniques common in solving complex problems (i.e. in engineering and science) to disparate or tangential circumstances and situations

SOLICIT ASSISTANCE: The ability to ask for help, assistance and expertise when the limits of one's own become an impediment or blocker to progress

KOPLIK: "I try to promote problem solving in social situations on their own, before they come to me. I want them to find that balance of when you need to find an adult."

RL RELATE

Collaboration

COMMUNICATION: The ability to effectively communicate thoughts, ideas, concepts, emotions and needs verbally and in writing - individually or in groups, in a manner reflective of established social norms

OPENNESS AND PERSPECTIVE: The ability to view a situation, event or circumstance from another point of view, or from multiple points of view

DIVERSITY AND INCLUSION: The ability to recognize, respect, and take perspective from the range of human differences, including race, gender, ethnicity, gender identity, physical ability, sexual orientation

EMPATHY: The ability to understand and share the feelings of others

HUMILITY: The ability to be honest and realistic in taking perspective of one's worth, value and modesty in relation to that of others. "Humility isn't thinking less of yourself, it's thinking of yourself less."

KOPLIK: "I try to promote collaboration, especially in regard to math. We are always trying to make sure it's not quiet when they do the work. I want to make sure I can hear all voices participating in the conversation."

IV INVESTIGATE

Critical Thinking

INFORMATION LITERACY: The ability to quickly and effectively determine what information is needed, where to find it, and how to evaluate, apply and communicate it

DATA SYNTHESIS: The ability to quickly and effectively evaluate data from various sources and use it to provide actionable insight

DATA RECOGNITION: The ability to quickly and effectively discern patterns in data, information, processes, etc. and model those patterns to produce solutions to disparate or tangential problems

BIAS AWARENESS: The ability to honestly perceive one's own biases, stereotypes, and prejudices when developing information, patterns, models, tropes or solutions

INQUISITIVENESS: The ability, rooted in an eagerness for knowledge, to objectively and broadly ask questions purely for the satisfaction of curiosity

KOPLIK: "Critical thinking comes when students test each other and get clearer answers. I promote critical thinking with accountable talk (initiative in Wakefield schools). I include more student-led conversations. I prefer the flow of a natural conversation rather than raising hand."

RF REFLECT

Self Awareness

SELF-REGULATION: The ability to understand and manage emotions; display emotions in a manner that is socially tolerable and sufficiently flexible

MINDFULNESS: The ability to focus on the moment, task, object at hand, in the present moment; awareness of the importance of the present

SELF-DIRECTED LEARNING: The ability to metacognitively transform mental abilities and acuity into academic skills

POSITIVE ATTITUDE: The ability to maintain and cultivate an optimistic disposition, an internal locus of control inclined intrinsically toward solution-oriented behavior that seeks desirable outcomes despite external circumstances

GOOD JUDGEMENT: The ability to consider options, opinions, consequences and actions objectively, with awareness, compassion and common sense

KOPLIK: "I definitely try to promote self-awareness: Rereading your writing (You're writing is not done because you wrote a big chunk of words), being aware of the students around you, being aware of what it is that you're doing and did ensuring you do it well."

AD ADAPT

Persistence

FLEXIBILITY: The ability to adapt to situations and circumstances either within or outside of one's locus of control

FIND YOUR OWN WAY: The ability to clearly articulate and navigate one's own path through situations, circumstances and scenarios

FAIL FORWARD: The ability to learn from failure and mistakes and positively apply what is learned to new challenges and solutions

IDENTIFY OPPORTUNITIES: The ability to recognize and identify opportunities for self, others and the community across various life scenario

SELF-CONFIDENCE: The ability to realistically assess, develop and articulate one's own abilities, talents, qualities and judgment

KOPLIK: "I'm always encouraging my students to try everything that they can before giving up, to take initiative and to keep trying even when it's hard."

CR CREATE

Creativity

INNOVATION: The ability to introduce new and useful ideas, processes, designs or solutions in a variety of contexts and circumstances

IDEA GENERATION: The ability to use effective processes to develop and iterate ideas into abstract or concrete concepts

IDEA AND EVALUATION ANALYSIS: The ability to take stock and evaluate the feasibility of ideas generated by self and others

DETAIL ORIENTATION: The ability to pay close attention to and effectively manage the volume and variety of details found in focused work

SR SERVE

Service

COMMUNITY ENGAGEMENT: The ability to utilize one's acquired skills, talents and interests in the interest of fostering the collective vision and benefit of one's community

GLOBAL AWARENESS: The ability to recognize, respect and take perspective of the cultural similarities and differences inherent in a connected, diverse and multicultural social norm

SERVICE MENTALITY: The ability to recognize and cultivate opportunities to assist others unselfishly and with no expectation for reward

SHARING: The ability to use occupy, or enjoy something jointly with another or others

KOPLIK: "This is the skill I want to be better about. This is the one I would love to see tied into existing curriculum. In 4th grade, it's less apparent how to do that. I wouldn't know how to connect it in a meaningful way to my teaching. The future ready component of service would be super-helpful because I could weave it in."

GG GET GOING

Initiative

SELF-DIRECTION: The ability to organize, make decisions about, and progress through about one's own efforts at work, play, and other endeavors

ACCOUNTABILITY: The ability and willingness to hold oneself and others responsible for actions, words, efforts and judgments

GROWTH MINDSET: The ability to continually cultivate opportunities for intellectual growth through application of hard work in the face of challenge

ENTREPRENEURIAL DRIVE: The ability to recognize and identify opportunities to be entrepreneurial and embrace an entrepreneurial mindset

URGENCY: The ability to respond quickly and with focused energy to problems, circumstances, and scenarios created by self or others

KOPLIK: "I always have a subset of kids who like a challenge problem at the end of a test. I always include one because it promotes having a growth mindset. You're always striving to do something harder and finding joy in it."

GR GET REAL

Real-World Effectiveness

PRODUCE MEANINGFULLY: The ability to apply meaningful thought, energy and effort to the production of meaningful work product

LEADERSHIP: The ability to lead others in a goal-oriented manner, and to help them grow, achieve, develop, and accomplish

REFLECTIVE PRACTICE: The ability to regularly reflect on one's thoughts, actions and attitudes with the goal of learning continuously

USE WHAT YOU KNOW: The ability to use and leverage ideas and knowledge from disparate domains to solve related and unrelated problems and inform others

EMBRACE CHANGE: The ability to successfully and resiliently respond and adapt to unexpected changes and events

FutureFit Projects

Our FutureFit skills are applied across our library of more than 22,000 pieces of content that we've spent years curating from vetted, high-quality sources. Wherever a FutureFit skill applies, you will see it prominently displayed on a resource.

But the FutureFit strategy goes further. TeacherVision has partnered with top curriculum writers as well as businesses and organizations that are committed to inspiring a new generation to become leaders and changemakers -- organizations like the International Federation of the Red Cross (IFRC), Candlewick Press, the Center for Cyber Safety Education and Free Spirit Pres. With those partners, we are creating in-depth, original content that is contemporary, exciting for students, project-based and easily integrated into core curriculum.

We will begin with our science lesson on earthquakes and plate tectonics. We integrated video footage, images and other assets of the IFRC's relief efforts in Tibet after the 2015 Gorkha earthquake.

The lesson takes students through a three- or five-day exploration of the earthquake's devastation one year and two years on. If a teacher chooses the five-day lesson, students collect information on the physics and impact of earthquakes around the world through background information, news reports, videos and mini-projects to prepare them for their final project on disaster relief and preventative measures.

If the three-day lesson is chosen, students work through the entire lesson, but don't present a final project at the end.

Each project is labeled with the FutureFit skills that apply. A project overview tab gives teachers a quick view of the subjects, grades, prerequisites and technology resources that apply.

“Using the lessons that have value in the real-world really helps kids understand and retain.”

The Teaching Guide tab walks teachers through the lesson, step by step, while the lesson materials gives teachers a comprehensive list of all materials used in the lesson. Teachers may choose the full lesson, a shortened lesson that leaves out the final project or a simple concept check.

The FutureFit tab gives teachers the option to teach only to the FutureFit skills.

Once again, our 4th-grade teacher was excited to see real-world applications of core knowledge and project-based learning that students could get excited about.

“The kids really buy into project-based learning,” she said. “Using the lessons that have value in the real-world really helps kids understand and retain.”

FutureFit Extension Activities

The final piece of the FutureFit strategy is our FutureFit extension activities presented as differentiated instruction. The extension activities apply to our existing core curriculum, the very foundations of each subject area.

If a teacher, for instance, is looking for resources on pollution and weather, they will find a worksheet that includes pollution and acid rain facts, as well as a short quiz. If, however, the teacher wishes to go beyond the worksheet, they will find extension activities that correlate to Get Real and Serve. Students can conduct an acid rain simulation or calculate their carbon footprint.

Conclusion

We've all heard it: Our education system is outdated and unable to produce the kinds of productive members of society who can contribute in a meaningful way to the workforce of the future.

Schools, businesses and nonprofits alike are jumping in to supplement with standards, frameworks, and, occasionally, tools to help teachers weave the skills of tomorrow into their classrooms today.

At TeacherVision, we have consulted and worked with educators, existing research and frameworks, businesses and nonprofits to craft a supplemental framework that will get students and teachers alike excited about learning not only core curriculum, but the 21st-century skills they will need not only to survive, but thrive in and even change the world. And all of this is done without disrupting a teacher's routine.