

Executive Summary

“The Future of Learning: Preparing Alaska’s Students with 21st Century Skills”

On November 9, 2016, nearly 100 people gathered for a day-long dialogue, convened by Education Matters, Inc., exploring ways to ensure that all of Alaska’s students graduate from high school with the 21st century knowledge, skills, and characteristics they need to succeed in college, career, and life. Those in the room included superintendents, teachers and teachers in training, college faculty, state and local school board members, business leaders, community leaders, policy makers, and more.

Panel #1: What are the 21st century learning objectives towards which all of Alaska’s schools should be working?

Fred Bramante, the President of the National Center for Competency Based Learning, discussed the process by which New Hampshire is shifting towards a mastery-based system rather than time in seats. He talked about the role of professional educators as coordinators and curators and he focused on the inevitability of online learning and the need for a significant increase in the number and variety of “experiential” or “real world” learning experiences.

Michael Johnson, the Commissioner of the Alaska Department of Education and Early Development focused his remarks on the need for transformative change in an education system that looks strikingly like what was in place 100 years ago. He urged the system to change to prepare students for the jobs of today and tomorrow, utilizing tools such as technology and experiential learning opportunities to develop effective instruction, assessments, intervention, and enrichment.

Discussion following the panel touched on the need to create policy, in partnership with communities to support sustainable reform. Participants felt technology was a critical piece of the equation but that investment in broadband was crucial. They considered reducing the number of school districts through consolidation to ease implementation. They believed that every community had the potential to identify and harness their unique assets and all believed it was critical to involve higher education and schools of education from the start.

Brainstorming: Developing a graduate profile for Alaska’s high school graduates

Following the initial panel, the group worked to develop a 21st century profile of an Alaska graduate. The skills they discussed included critical thinking, group teamwork and collaboration, communication, cultural competency, and problem solving. The characteristics or traits they felt were essential included citizenship,

curiosity, character (integrity, respect, humility), resilience, work ethic, confidence, and persistence.

Panel #2: Identify policies and practices needed at the state and district levels to achieve 21st century learning objectives

Anne Marie Stieritz, President and CEO of the South Carolina Council on Competitiveness, talked about TransformSC, a long-term, grass roots approach to reform that builds on a strong economic imperative and support from multiple stakeholders, including key business leaders, policymakers, and educational leaders. The coalition's goal is to increase the number of college, career and citizenship ready graduates.

Dr. Deena Paramo, Superintendent of the Anchorage School District, began by providing some context for why schools need to change to a more personalized, competency-based approach. Learning is not passive and today's students cannot compete on knowledge; technology is a key part of all of this—tech jobs are everywhere and every job is in part a tech job. We should look at our goal as great teaching and learning in the presence of a device, or aided by a device. The Anchorage school board has challenged the district to rethink the traditional 3 R's, and instead think about rigor, relevance, and relationships.

Dr. Steve Atwater, Interim Dean of Education at University of Alaska Fairbanks presented a sampling of what he has learned in talking with rural educators in recent weeks. One trend is an increasing demand for kids to leave a village and go to boarding school for high school. He stressed the importance of sustained leadership in building trust and driving transformative change. Policies in place can be “drift prevention” and create internal accountability systems for when principals are not on board with change. The future for Alaska, particularly rural Alaska, is to let go of district boundaries and work together. Community buy-in also is a must for this and other transformative change to take place in rural Alaska. The biggest outstanding questions around competency- and mastery-based approaches is measurement and assessment.

Discussion following the panel suggested that the system must become more fluid, more competency and experience based, which will require overcoming rigidity and gridlock throughout the system. Participants agreed that sustaining change is difficult, necessitating the building of broad buy-in, alignment and commitment (through policy), regardless of changes in leadership. Committed leadership over time is essential to sustained change, but the need for change is urgent and kids cannot wait. Everyone agreed that the economic imperative is as important as the moral imperative to make this shift.

Panel #3: Real world learning: how education and the business community can work together to improve student outcomes

The third and final panel of the day focused specifically on the role of the business community and the “real world learning” component of a 21st century education. Fred Bramante and Anne Marie Stieritz returned for this panel to talk about their experiences in New Hampshire and South Carolina respectively, building relationships with business leaders and business owners to both support education reform and provide real world learning opportunities. Mr. Bramante spoke about New Hampshire’s program to connect business mentors to high school students, and the goal to exponentially increase the number of students involved in real world learning. This effort is tied to the state’s goal to increase the current 50% of adults with some sort of degree, credential or certificate, to 65%. He noted the benefit of these programs and relationships both to students and potential employers.

Ms. Stieritz reviewed the characteristics of a South Carolina graduate. She stressed that this profile, developed with the business community, included world class knowledge, world class skills (e.g. creative problem solving, communication, etc.), and life and career characteristics. She reviewed the process by which South Carolina engaged and involved the business community, turning them into advocates for education reform, and direct beneficiaries of real-world learning programs such as apprenticeship and on-the-job training programs. She also described a range of opportunities for experiential learning that South Carolina has formalized, from on-line job shadowing to full registered apprenticeship programs, all designed in tandem with business and industry leaders.

Discussion afterwards touched on how to translate real world learning into academic credit, templates for safeguarding students (and districts) taking part in on-site experiential learning, the structure of the academic portion of the programs, and ways to provide workplace experiences for teachers.

Small Group Discussion: Identifying steps to prepare teachers, classrooms, parents, and students for this new environment

To conclude the conference, participants worked to develop high impact ideas for tangible action that they believed would move Alaska along the path towards a 21st century approach to education. They put forth initial plans for five initiatives:

- 1) Create an online platform for sharing best practices, ideas, research, and professional learning communities
- 2) Professional learning communities in every district
- 3) Experiential learning collective impact program

4) A formal State School Board position and public statement

5) Develop a systematic approach to professional development around competency based and experiential learning

Final Report

“The Future of Learning: Preparing Alaska’s Students with 21st Century Skills”

A Symposium Convened
by
Alaska: Education Matters, Inc.

On November 9, 2016, nearly 100 people gathered for a day-long dialogue, convened by Education Matters, Inc., exploring ways to ensure that all of Alaska’s students graduate from high school with the 21st century knowledge, skills, and characteristics they need to succeed in college, career, and life. Those in the room included superintendents, teachers and teachers in training, college faculty, state and local school board members, business leaders, community leaders, policy makers, and more. The goals of the session, introduced by former Anchorage Mayor and EMI Founder Dan Sullivan were to:

- Develop a shared understanding of the 21st century skills that Alaska’s graduates need to achieve success in career or college;
- Learn how “learning” itself is changing and identify the innovations required by Alaska’s schools;
- Design ways education and business can work collaboratively to meet the needs of graduates and future employers; and
- Begin to develop pathways for implementing changes in Alaska schools

The day was structured around a mix of panels and small group and plenary discussions, culminating in a session in which participants developed high impact ideas they believed would move Alaska towards a 21st century educational system, in which students are rewarded for mastery rather than time in-seats; and in which experiential/real world learning is an essential element of every student’s education.

Panel #1: What are the 21st century learning objectives towards which all of Alaska’s schools should be working?

Panel Members:

- Fred Bramante, President of the National Center for Competency Based Learning
- Michael Johnson, Commissioner of the Alaska Department of Education and Early Development

Mr. Bramante:

Mr. Bramante, as chair of the State Board, was tasked with an overhaul of the New Hampshire Education Code. He began the process by asking what he thought to be simple questions of the members of state board and commissioner's cabinet.

His first question: We give credit towards graduation for successfully passing P.E. but we don't give credit for being on the gymnastics team. Sports teams involve more hours and demand a higher level of skill and students on teams are most likely to continue be athletic; isn't that the goal? So why don't we award credit?

His second question: What if a school had no team but a student went to a gymnastics academy. Are we saying that a skill or content counts when it is learned inside a school, but if it is learned outside of a school, it doesn't? Do we care more that our school is the first-hand deliverer or do we care more that our kids learn regardless of the source? The answer, across the board, was that the issue was kids' learning.

Mr. Bramante went on to explain that today, in looking at how we deliver education, we have a large circle made up of classroom time, a small circle for online classes, and a tiny circle for experiential learning. In the future, Mr. Bramante anticipates all three circles will be the same size. An increase in online learning is unstoppable; more challenging is developing opportunities for real-world, experiential learning, which is the focus of his organization. They want to create ways for students to take ownership of learning, in which the entire community is the classroom. And in his vision, professional educators coordinate all of these opportunities. How bold do we want to get? He believes we must be transformational thinkers, envisioning every student as the driver of his or her own learning, with a professional educator as facilitator—anywhere, anyplace, anytime.

New Hampshire has formed a committee called "Pathways to 65 by 25"; meaning 65% of the workforce will have either an advanced degree, certificate, or credential. One critical strategy includes giving every student the opportunity to earn or be on a path to a career-related credential while they are in high school. All the training already exists, just not in a regular school. In the future, any student could walk out of high school with an associate's degree, a massage therapist's license, software credentials, or an engineering certificate. In addition, New Hampshire removed the use of the Carnegie unit—credit is only given on demonstration of mastery and required competencies.

His challenge to educators; you have a 20th century budget; how much of your budget will you commit to moving into 21st century system? The most expensive and least efficient system we have is the 20th century model. And

this model impacts students' self-perception. How many kids believe they are not very bright because the system told them they weren't? We need to move from a time-based system to a competency-based system that makes time and place the variable and learning the constant.

Dr. Johnson

Dr. Johnson began by talking about the difference between school in the 1920s and today, concluding that you would not see a difference between 1925 and 2016 because we are still so tied to location and time. A system so tied to seat time suffers from teacher shortages more than one that is more flexible in its approach to learning.

We cannot stay the same. Our values do not need to change but how we go about living out our values is changing, and already has changed. The jobs and careers our kids are going to have are going to be different than ours; our classrooms must be different as well.

There are five questions about education that we must ask and be able to answer, regardless of any changes we make in how we deliver that education:

1. What do we want our students to know and do? Answered through effective standards;
2. How do we want them to learn it? Answered through effective curriculum and instruction;
3. How will we know if they've learned it? Answered through effective assessments;
4. What will we do if they don't? Answered through effective intervention; and
5. What if they already know it? Answered through effective enrichment.

Q & A of Panel

Q. How do we break through the status quo to make a difference for all students?

Mr. Bramante:

Most school redesign efforts go into a document and gather dust. The reason that has not been the case in New Hampshire is that they put the new approach into regulations that districts cannot ignore. Regulations have the force of law. They mandated flexibility and told school districts to get rid of the excuses and do it. They gave districts limited time to remove credit for seat time and replace it with credit for competency. Everyone was forced into the conversation. New Hampshire is not perfect; they are getting there. It is a work in progress, and every year they move forward.

Dr. Johnson:

Why is it going to be different his time? We've talked about it for 20 years; my answer is that's okay. We've been talking about change and we always will be. It doesn't mean we haven't been changing. Lots of students have gotten a great education. A lot of smart people have been working on this, but we have not arrived and gotten as far as we would like. We have many experts in this room who can apply their experience and understanding and wisdom to these questions. We need to draw on this expertise and pull it together to move the rest of the state forward.

He cautions that we tend to talk about technology a lot. He does not see this as being about devices or technology; instead it is about extending the benefit of great teachers. Technology allows us to extend great teaching in more areas to more students.

Small Group Discussion About Panel #1

In small groups directly following the presentations, participants discussed the panel's comments and identified many key takeaways they thought were important and relevant to Alaska, as well as questions for the panelists. Participant key takeaways included:

- Competency learning can and should take place outside traditional classroom setting
 - It is essential to have professional educators (although we may broaden the definition) as facilitators
 - Only applicable to older kids
 - Concerns about competency-based approaches included how to apply it to younger students, and how best to involve and bring along parents.
- Need investment in broadband, particularly in rural Alaska, among other investments, and many districts don't have capacity to make significant change, leading to a lack of equity
- 54 districts are simply too many; fewer would make this easier to implement
- Resistance to change is pervasive; it requires proven demonstration projects, incentives and encouragement for teachers; may be easiest to overcome at first in smaller communities
- Changing the place where the student learns (to the community), the role of the teacher and the student (as driver of their own education), and the

switch from seat time to mastery is transformational

- Business investing i.e. GCI, will be critical to success
- Solutions must outweigh financial talk; right now, we have 20th century budgets, 21st century learning
- Need more communication channels/access to best practices and supports, as well as increased access to technology
- Repeal 180 days/school year may be necessary (but what are implications?)
- Progress can be inhibited by well-intentioned policies and regulations
- Alaska must expand credit for career exploration to all students (not just gifted, CTE, etc.)
- Expanding and strengthening alternative teacher certification and credentialing pathways is also an essential piece of the puzzle

The small groups then shared their questions for a question and answer session with the panel members in plenary session:

Panel #1 Q & A

Q. What is one thing that could be done to accelerate this process?

Mr. Bramante:

There is no flip of the switch; this takes time and the education community does not always jump on the bandwagon. Changing regulations need to be in partnership with communities. New Hampshire started with a bold vision, then pulled together a “Standards Task Force” for a facilitated two-day retreat. The task force then met every two weeks for a year. They followed up this work by holding information sessions around the state, and this dialogue ended up changing things in the recommendations. This may have been the most vetted process ever in New Hampshire. Everyone felt they had their fingerprints on it. But it did not go down easily all the time, and they were challenged along the way. Policy and engagement were intertwined. Also, the regulations are not prescriptive; they allow for creativity/innovation on a district level. The New Hampshire Dept. of Education website lists recommended competencies for every subject and districts can use or revise them. The state offers technical assistance to make it easier to refine and implement this approach.

Dr. Johnson:

At a very high/low level, we must stop tying our vision for public education to the price of oil. Our state needs to have a vision for public education that doesn't rise or fall with the price of oil.

Q. How can this model be expanded into rural communities?

Mr. Bramante:

Clearly New Hampshire rural is not the same as Alaska rural. What they said in New Hampshire was that every region can identify its unique assets; doctors, lawyers, streams, rivers, mountains, etc., and technology should be available as an important leveler. There will not be the same assets in every community, but every community must put serious effort into identifying and harnessing their assets. Pittsfield Middle High School, as an example, has done an incredible job in a small, low-income community. (He suggested reviewing their [Extended Learning Opportunity site](http://www.pittsfieldnhschools.org/pmhs/college-career/extended-learning-opportunities/) (<http://www.pittsfieldnhschools.org/pmhs/college-career/extended-learning-opportunities/>).

Dr. Johnson:

For rural Alaska, it is essential to address the issue of bandwidth, not so that students have access to technology, but so they have access to great teaching. Students in rural Alaska are limited to the number of teachers they interact with in-person, but bandwidth leads to equity and access to teachers throughout the state. Bandwidth must be a prominent part of the discussion.

Mr. Bramante:

My organization is working on developing 10,000 mentors. The goal is to find out what you have in regards to educators who may not be traditional teachers. In Manchester, New Hampshire, there are 500 high school teachers. If we find 1000 business partners, we have 2 co-educators for every high school teacher, leading to skilled professionals mentoring our kids in a coordinated fashion, which expands access to great teaching.

Q. What does 21st century and real word learning look like in Elementary and Middle school?

Mr. Bramante:

Initially, state regulations were revised in 2005 and applied to high school students only. The state allowed middle school students to participate in competency-based approaches if districts wanted to put efforts in place, but schools were not required to do so. But in 2014, the regulations were updated and the committee agreed to bring competency-based and experiential learning all the way down to the elementary level. Students won't participate in out-of-school projects in elementary, but "move on when ready" is the driver in changing elementary education.

Dr. Johnson:

Competency-based education opens opportunity to allow the education system to be more culturally relevant for Alaska students. The state board has identified five priorities that tie into all our discussions today that will be a pathway to getting there:

- Amplify student learning (both increase learning and make it the center of all the work they do);
- Inspire community ownership of excellent education;
- Modernize the system (not by adding devices, but by changing the way we provide and deliver in the ways discussed today);
- Ensure excellent educators (in conjunction with classroom modernization and working closely with U of A); and
- Ensure safety and wellness of Alaska's students.

Q. What needs to change in regards to teacher training and teacher education?

Mr. Bramante:

Changes to our teacher training efforts are in the infancy stage. Southern New Hampshire University is developing a credentialing program for Expanded Learning Opportunity (ELO) coordinators, which will be the first foray into credentials for competency-based educators. There are mistakes that we made in New Hampshire because we did not have a template. One was failing to engage higher education in the process from the beginning; this needs to happen much sooner and we had to play catch up. New Hampshire state regulations do not use the work "teacher"; they use educator. They do not mention "classrooms"; instead they talk about learning environment. And instead of instruction, they use "learning".

Dr. Johnson:

We are preparing teachers for a classroom of yesterday. We already have many teachers in rural Alaska that provide culturally relevant education that do not have certificate. We need to re-tool teacher certification.

Brainstorming Session: Developing a graduate profile for Alaska's high school graduates

Participants worked in small groups worked to develop a 21st century profile of an Alaska graduate. The discussions were wide ranging, and many of the qualities they identified fell into categories other than knowledge and content; skills and character traits were cited by every table as critically important for college, career and life success.

One group summed it up like this: “every student graduating from an Alaska school will have the capacity to succeed in their next endeavor and will leave with the mindset and the tools for continuous growth.”

Everyone agreed that students need to have mastered basic competencies (literacy, numeracy, financial literacy, cultural and global awareness/acumen and some also mentioned technology and software literacy). They also wanted to see every graduate finish school with a vision or a plan for their lives post-graduation. But more of their conversations centered around the skills and character traits that they felt would make graduates successful.

The skills they discussed included (in order of frequency mentioned)

- Critical thinking—discerning information and data
- Group teamwork, collaboration, cooperation
- Communication
- Cultural competency, diversity
- Problem solvers for non-technical solutions, create ideas
- Ability to identify and utilize resources to maximize potential

The characteristics or traits they felt were essential, in order of frequency, included:

- Citizenship—engaged in community (mentioned by more tables than any other single trait or skill)
- Curiosity—independent, lifelong learners
- Character—integrity, humility, respect
- Resilience/grit—not afraid to fail
- Professionalism—work ethic
- Versatility and flexibility
- Excellent work ethic—punctual, takes initiative
- Self-regulation
- Confidence/perseverance

These conclusions will serve as input for a new state-level effort by the State Board to develop and implement a revised graduate profile for all Alaska students as part of their new strategic plan.

Panel #2:
**Identify policies and practices needed at the state
and district levels to achieve 21st century learning objectives**

The second panel focused on what sorts of policies and practices could be implemented to move Alaska schools towards the 21st century, competency-based and experiential learning model participants envisioned? The speakers on the panel

had all had experience on either a state or district level making the sort of changes needed. The speakers were:

- Ann Marie Stieritz, President and CEO of the South Carolina Council on Competitiveness whose TransformSC approach to education has become a national model;
- Dr. Deena Paramo, Superintendent of the Anchorage School District; and
- Dr. Steve Atwater, Interim Dean, University of Alaska Fairbanks School of Education and former Superintendent of Lake and Peninsula Borough and Kenai Peninsula Borough school districts.

Ms. Stieritz:

TransformSC has taken a long-term, grass roots approach to reform that builds on a strong economic imperative and support from multiple stakeholders, including key business leaders, policymakers and education leaders.

While the work TransformSC does is cross sector, all the task forces and working groups are chaired by business leaders. The coalition's goal is to increase the number of college, career, and citizenship ready graduates. Over the course of 18 months, the group developed a profile of a South Carolina Graduate that emphasized three areas: world-class knowledge, world-class skills, and life and career characteristics. The profile was endorsed by a wide range of organizations—from the State Arts Alliance, State School Board, to the State Chamber of Commerce—and recently was codified by the legislature, providing a common vision for the State.

TransformSC is about transformation in every classroom, every teacher, every student, every day. It is a grass roots approach to systems change, not a single programmatic approach. TransformSC has identified four key innovative practices within a culture of innovation:

- Evidence-based blended learning;
- Competency based progression;
- Project based; and
- Continuous assessment.

TransformSC is providing support structures for these areas.

The effort began with 30 schools that volunteered to participate, and now has 55 schools, including four school districts. Schools wishing to be a part of TransformSC must apply and identify the innovative practice they wish to implement and how; and complete a self-assessment of the culture of innovation in their school.

A TransformSC team member and a partner from the State Department of Education work together to decide which schools are ready. Accepted schools then are part of a working group and must complete a three-year

innovation plan with goals and metrics. Schools participate in action teams that have developed around each innovative practice, along with a professional development institutes, and a culture of innovation action team. In addition, Transform SC has recently created a higher education action team to ensure a smooth transition to higher education as well as to develop teacher preparation programs that support the innovative practices.

Ms. Stieritz discussed several examples of the work TransformSC is doing, including an early childhood center that implemented competency-based learning (by re-allocating existing resources) and saw parent participation increase by 400%. The model is now being pushed up to elementary and middle schools in the district. She also discussed a more cautionary tale of a middle school that implemented huge changes around personalized learning, turning around a failing school in a high-poverty area. However, when the Superintendent left the district, the new leadership changed course, and the programmatic changes are no longer in place, because they were not written into policy. The moral: leadership is critical, and finding ways to develop policy is critical to making these developments sustainable. To this end, principals have asked to create a peer-to-peer working group to find ways to make these improvements sustainable, even in less supportive environments.

Finally, Ms. Stieritz explained that the business community has pledged to use its political capital to break through identified barriers to develop favorable regulations or to get needed waivers.

Dr. Paramo:

Dr. Paramo began by providing some context for why schools need to change, and why they need to change to a more personalized, competency-based approach. She began by engaging the group in a discussion of why we educate at all, and concluded that it goes beyond content knowledge; that in fact, we are educating young people so that one day they can find well-being and happiness, can be connected to family and community, and can be financially stable.

She pointed out that while many other aspects of society look very different now than they did 150 years ago (transportation, communication, information sources), education looks far more similar. She pointed out that unlike many decades ago, when the classroom was focused on content delivery as it was the main place to access content, content and knowledge now is everywhere, free and easy to access. In today's world, it doesn't matter what you know, it matters what you can do with what you know. Business owners tell her that if students have the necessary skills (critical thinking, problem solving, technology use) they can teach the knowledge. Learning is not passive and today's students cannot compete on knowledge.

As a call to action, Dr. Paramo suggested that our system needs to stop thinking about adults first, both in k-12 and higher education, and put in place policies that put children first. Our current system thinks about the adults first. As an example, she cited school policies around dual credit that were hurting students who had demonstrated competence but were not being awarded full credit. In another example, a student participating in a special UA program that allows high school students to take classes for credit was not allowed to do so because it was at a different UA campus. Dr. Paramo developed a complex work-around (allowing all the students in the program to be enrolled in a specific school district that could transfer credits)—but again, this is another example of how the system was not set up in favor of the student.

Teachers and administrators are working very hard, all the time; the trick, she says, is to identify the correct work. And technology is a key part of all this; tech jobs are everywhere and every job is, in part, a tech job. We should look at our goal as great teaching and learning, in the presence of a device or aided by a device.

The Anchorage school board has challenged the district to rethink the traditional 3 R's, and instead think about rigor, relevance, and relationships; and the last one is especially important because "kids don't think you know what you know until they know you care."

Steve Atwater:

Dr. Atwater presented a sampling of what he has learned in talking with rural educators in recent weeks. In a review of mission statements, he found a range of emphasis and a diversity of approaches:

- One trend is an increasing demand for kids to leave the village and go to boarding school for high school and he suggested this was an issue deserving of high-level attention;
- Social learning is often more effective than individual learning and this seems to be even more pronounced in the case of Alaska Native students.

Echoing the comments of other presenters, Dr. Atwater focused on the importance of leadership, and in particular sustained leadership, in building trust and driving transformative change. When dynamic leaders leave and policy is not in place, drift happens quickly. Policy is "drift prevention" and it creates internal accountability systems for when principals are not on board with change. He cited St. Mary's as an example where the Superintendent has built deep trust within the community after 12 years and now can innovate with full support.

Graduation rates in rural Alaska are inching up and dropouts inching down. Education is getting better. Cultural education and competence is growing, and more technology is available to deliver content.

A major and positive change is the breaking down of borders between rural districts, for example in Bristol Bay where four districts have come together to provide vocational education. The future for Alaska, and in particular rural Alaska, is to let go of district walls and play together. And community buy-in is a must for this and other transformative changes in rural Alaska.

Some other takeaways: private dollars are coming in to the schools more often, particularly from EDCs. And when it comes to technology, we cannot expect seamless learning environments for students without increasing Internet connectivity with some urgency.

Right now, at UAF, teacher preparation focuses on place based and contextual learning. The program works with aspiring teachers on how to use technology, but it is not preparing them for high tech classrooms, because for the most part they do not exist. He sees their progress as more reactive. When such classrooms exist, they will shift how they prepare teachers. They offer yearlong internships for teachers, as well as rural practicums in which they place student teachers in rural villages. And they are working with paraprofessionals in rural districts to get Type A credentials to increase the number of educators.

As for what he sees coming next, Dr. Atwater stressed the need to fill teaching vacancies, even in places like Fairbanks that have not seen vacancies previously. He believes that interns (through Title 1A and Title 2A funds) may be the best way to grow teaching staff.

He recommends more formalized sharing of successes, and institutional and financial support for districts to take chances. Also in the future, an increase in digital content and further blurring of borders between districts. At the same time, the Alaska Native community wants to engage in a process to redefine the system of education, including a consideration of an increase in boarding high schools. ANCEP for example, wants to create a high school for 400 Native students. The relationship between the Alaska Native communities and rural Alaska is growing and tight.

Finally, he explained a test out option in Ketchikan that allows students to take the GED at the end of tenth grade and skip 11th. How that works when those students get to UA is a work in progress.

The biggest outstanding questions surround measurement and assessment. How do you know these approaches are working? What are the metrics to determine they are making a difference? These questions will continue to drive discussion in the years to come.

Small Group Discussion About Panel #2

Following the panel, participants worked in small groups to reflect on the panel's comments and identified questions for the speakers:

- Many discussed the challenges with the current system, which is viewed as too reliant on compliance, memorization, siloed instruction and too focused on teaching to the middle;
- The consensus was that approaches were needed to make the system more fluid, more competency and experience (and less seat-time based) and more fluid. To do so, however, many felt there was a need to overcome a lot of built-in rigidity, particularly around fiscal regulations, assigning of credit, assessments that measure knowledge, and content.
- The state cannot move forward while keeping the “old ways,” but all agreed that courage to simply start making changes and a bit of risk-taking would be necessary to jump-start larger reforms;
- Concerns about gridlock and how best to break through talk and move to action. Involving parents, business leaders and the community was key to success, along with working across district boundaries. And once change was in place, many were worried about sustaining it; building broad buy-in, alignment and commitment, regardless of changes in leadership. This meant changes in policy and regulations were essential. And collaboration and cooperation was key, across districts, with stakeholders, the business community, and with the University of Alaska in particular;
- A clear articulation of what a master-based approach would look like throughout the K-12 journey, rather than focusing on high school. They also wanted to understand better how to address issues around minors in workplace and other out-of-school settings. And participants stressed that technology needs to play a major role and all students need to be comfortable with rapidly evolving technology;
- Rural schools were a subject of much discussion. Teacher and tech shortages were noted as concerns. Boarding schools were seen as an important element in offering up great teaching and learning opportunities for all students. And the group noted that many rural schools were already implementing innovative and exciting programs, and that in some cases, less flexible larger districts are harder ships to turn, even though they might have more resources.

Q & A of Panel

Q. What do we need to do to get buy-in and create and support for sustained change?

Dr. Paramo:

We need buy-in from the community and to convince people of the “why.” Districts need to be speaking to community groups and demonstrating the need—and the economic and democratic imperative. We want our kids to stay close to home and to be able to find work, but we need a thriving community to make that happen.

Ms. Stieritz:

The economic imperative is as important as the moral imperative. TransformSC is framed in SC as an economic imperative, which helps frame it politically, and the other objectives get slipped in. In an area of the state where there were four TransformSC schools in close proximity, we hosted a bus tour with policy makers and business leaders. Schools also invited their local leaders and TransformSC got people to really understand the positive stories and the “why.”

Dr. Atwater:

Rural Alaska has many students who are only the second generation to be in school, so the culture of school is shallow and jaded because many people had bad experiences. We have to build relationships and engage local culture to build buy-in. As an example, St. Mary’s intertwines local culture into the school day, and the Superintendent has built trust so he can innovate with community support. This kind of work takes longer than two or three years; it requires a long-term commitment.

Ms. Stieritz:

TransformSC’s co-chairs have stated that they are in this for ten years, not a 2-3-year programmatic implementation.

Q. What steps do you suggest to expand the culture of innovation and support for long-term commitment and change?

Dr. Paramo:

Long-term commitment is essential but she has a sense of urgency, and kids cannot wait. We cannot continue to admire problems. She finds ways to work around the adult issues of policy makers and educators to figure things out to benefit kids. Systems are holding people back; we do what we always have done. If we know it is good for kids, let’s get the support to do what we need to do.

Q. How can we encourage school districts to work together for the benefit of all students?

Dr. Atwater:

First and foremost, school boards need to have a willingness to work together. They need to be willing to share services, ideas, innovations, courses, and content delivery. Bristol Bay area districts are a good example around vocational education. They believe they can only provide quality vocational education if they share services. Limitation is only a limitation if you keep the paradigm. It makes no sense to have 54 school districts in Alaska. SE Alaska is already starting to collaborate; others need to follow suit.

Panel #3:

Real world learning: how education and the business community can work together to improve student outcomes

Panel members:

- Ann Marie Stieritz
- Fred Bramante

The day's final panel focused specifically on the role of the business community and the "real world learning" component of a 21st century education. Fred Bramante and Ann Marie Stieritz returned for this panel to talk about their experiences in New Hampshire and South Carolina respectively, building relationships with business leaders and business owners to both support education reform and provide real world learning opportunities. This panel was followed immediately by audience Q&A.

Mr. Bramante:

A recent study demonstrated that 50% of working age adults in New Hampshire have some form of credential, advanced degree, license, etc. However, the changing workforce needs of the state mean that their needs to at least 65% with some form of credential by 2025. The New Hampshire Coalition for Business in Education has adopted this as their overarching goal.

College people thought they should focus on college students but others said this had to be a broader effort. Since the 25-year olds of 2025 are in high school now, to accomplish this goal, it was agreed that this had to start with today's high school students. They started a new organization to bring in mentors and opportunities for enrichment outside of the classroom. Right now, New Hampshire has 16,000 high tech/advanced manufacturing jobs unfilled, and it is the same with healthcare, and building trades. Yet New Hampshire has less than 3% unemployment. Its workforce is limited, and

providing exposure and learning opportunities in these fields for high school (and younger) students will build the workforce of tomorrow.

My organization says to businesses: we can connect you to high school students that you can groom, mentor, and train, and if you like them, you can tap them and offer them jobs. With your engagement, we can create a workforce on which you previously had not counted.

As an example, The New Hampshire Manufacturing Association now looks at this as how they will get their workforce of the future. Most students have never considered a job in manufacturing and have a completely outdated understanding of the field. They have established a “manufacturing week” and after students go through it, there is a huge jump in students considering a (well-paying) career in advanced manufacturing. Kids don’t know what exists so they don’t have interest.

I envision a community where everybody participates in educating our students.

Ms. Stieritz:

Her remarks began with a brief video presentation from the TransformSC explaining the characteristics of a South Carolina graduate, which was developed and supported by a wide range of stakeholders:

- World class knowledge (mastery of reading, fundamentals of math, mastery of science and arts);
- World class skills (creative problem solving, communication, technology skills, teamwork, knowing how to learn); and
- Life and career characteristics (responsibility, integrity, self-reliance, perseverance, etc.; the characteristics that allow you to be successful in a career).

Having superintendents agree that these three elements were fundamental brought the business community into the fold because they reflected what they were looking for in their employees. Can we create a system that focuses on these things? Developing this profile and securing wide support and buy-in has given us the freedom and backing to go out and innovate.

In 2006 South Carolina passed the Education Development Act, which required every student to have opportunities for experiential learning, work-based learning, and to have a graduation plan. Due to budget cuts implementation of the Act slowed, but it included career awareness starting in primary school and going through high school, and the transition to higher

education. It called for career counseling, career specialists, and reducing the ratio of counselors to students. South Carolina has a robust policy framework that needs strengthened implementation.

South Carolina also has experimented with programs that went beyond traditional internships, for example “Microburst Learning,” offering 90 online job-shadowing opportunities. These kinds of programs have been particularly good for rural students.

The other major focus of their effort and investment has been in registered apprenticeship and youth apprenticeships, and this has been strongly supported by the business community. Previously, apprenticeships had been underutilized as the ultimate workplace learning model, but since 2008, South Carolina has had more than an 800%+ increase overall in apprenticeships. Their current focus is on increasing apprenticeship programs for high school juniors and seniors, in which seniors would graduate with a high school diploma, a nationally recognized industry credential, and two years towards an associate’s degree.

A new national model for apprenticeship allows for competency-based demonstration of mastery of skills rather than time in-seat, both in terms of on-the job training and educational training. Because South Carolina is a non-union state, they could not attach the effort to a union, as it would have been a non-starter. And to avoid having this pegged to a particular industry, TransformSC intentionally reached out and showed this approach worked for IT, health care, small business, as well as the largest manufacturer in the state (Blue Cross Blue Shield.)

They also were able to sell this to smaller businesses by promising students would come to them with the academic knowledge necessary and the businesses could customize their OJT. Companies participating must offer a wage progression over time. Small companies worried that this might demand a lot of HR, so they asked for approval of a tax credit, which the legislature approved; \$1000/year per apprentice for up to four years.

Through a consensus building process, they agreed to house the program with the community college system, because in looking at the concerns of parents and students, they realized this needed to be seen as part of the educational system, not an alternate route. Instead, this approach is presented as a continuum that is not terminal (many students still go on to 4-year degree). They started the apprenticeship and internship programs with the existing workforce and adults, and are expanding into high schools, dealing with liability issues and workers comp. They just received a \$900,000 grant to expand youth apprenticeship, in which the apprenticeships get paid and receive credit.

Q & A of Panel

Q. Is there a set number of hours or list of skills that students must demonstrate, and how does that translate to academic credit?

Ms. Stieritz:

Registered apprenticeships are paid, unlike internships, which means they are great for economically disadvantaged students. Typically, they require 144 hours of academic or instructional time and the OJT varies, but the allowance for competency increases flexibility. More information is available at <http://www.apprenticeshipcarolina.com>.

Q. How do we safeguard students out in the workplace? How can we safeguard family values, ethics?

Mr. Bramante:

New Hampshire's extended learning opportunity coordinators put together a 300-page document that describes aspects of what it means to be a coordinator. School attorneys created a whitepaper on mitigating risk for school districts, students, and community partners. The head of the school attorneys said it is inevitable that something bad is going to happen; the question is if you putting yourself in a position to reduce the number of bad things and to protect the district and everyone involved? This whitepaper is 15-16 pages and lays out guidelines for districts that are nervous when kids are no longer within the walls of the school.

Q. How about getting programs for teachers into the outside workforce?

Mr. Bramante:

Right now, New Hampshire has no curriculum available for teachers to learn what it means to be a competency-based educator, and no formal workplace experience programs for teachers. However, he envisions a system in which you could have some teachers working part-time and the rest of the week they could be in the workplace, developing relationships with community partners and building programs that support kids and their interests.

Q. Who designs and delivers the academic piece?

Ms. Stieritz:

Right now, the content of the academic piece is delivered by teacher or a community college instructor and OJT is designed and delivered at the workplace.

Mr. Bramante:

Employers could be delivering academic content for credit, although that is not currently happening in either New Hampshire or South Carolina. Theoretically, if a school says yes and wants to make it happen, they can work cooperatively with a community partner to do so. But doing this well and being consistent and sustained, will require bringing along (or letting go

of) faculty members. The Superintendent in Pittsfield coached people out who were not invested in the approach.

**Small Group Discussion:
Identifying steps to prepare teachers, classrooms, parents,
and students for this new environment**

Following the final panel, participants worked to develop high impact ideas for tangible action that they believed would move Alaska along the path towards a 21st century approach to education:

#1. Create an online platform for sharing best practices, ideas, research, and professional learning communities

The group that developed this idea believed it would be possible to work through already existing groups or organizations to create an online platform that served as a valuable tool, sounding board, repository, and virtual community for educators and other stakeholders:

- The Association of School Boards could be a possible convener and suggested a partnership with the University of Alaska. This would allow for the creation of electronic resources;
- Resources would be required to develop the platform and to keep it updated, and some online-creation and facilitation would be needed for professional learning communities (superintendents, principals, school board members, teachers, etc.); and
- The group thought it was important to have a student voice included.

In the discussion following this group's presentation, a participant suggested that in addition to an online platform, it might make sense to take a radically different approach to all the education conferences that happen throughout the year and instead take a week off from school and have a weeklong all-hands on deck education conference.

#2. Professional learning communities in every district

This group envisioned a district-by-district approach that provided time and resources for educators to collaborate, observe, and share best practices. They envisioned these communities would expand beyond the walls of the school, leading to:

- Expanded opportunities for paid externships for educators in summer beyond STEM, including opportunities in arts, humanities, and social sciences;
- Partnerships with unions, etc. for internship/apprenticeship experience;
- "Parent universities" with parent leadership, beginning at the early childhood level, creating a broad knowledge of and acceptance of "soft" or non-technical skills and their importance in education; and

- Welcoming environments within a school

#3. Experiential learning collective impact program

This group envisioned a collaborative approach to experiential learning, in which a convener brought together all, or many, of those currently providing “real-world” education experiences to Alaska students. This group would work to formalize the goals and objectives of the state’s experiential learning programs, to establish shared criteria and evaluation standards, and to expand opportunities for students.

- Year 1: develop goals, profile of graduate
- Year 2: mid-course corrections
 - Add opportunities in crafts, aviation, hospitality (including apprenticeship programs)
 - Develop standards
 - Establish quality criteria for extended/experiential learning for credit
 - Address liability issues

The group would include, and perhaps be chaired by, the State chamber of commerce, along with the State Board of Education. Business partners offering internships, apprenticeships, and other real world learning experiences would participate in the collaborative along with legislators, educators, University faculty and other stakeholders. The group would develop these opportunities for real world learning across the K-12 continuum.

#4. A formal State School Board position and public statement

This group believed that it was important for the State School Board to formally develop and codify a clear rationale and mission statement for Alaska’s transition to and approach to 21st century learning. They believed part of this should involve pilot programs at a small number of test schools, leading to a more formalized network of identified and interested schools. This model was based, in part, on the work of TransformSC, in which schools volunteered to be “change agents,” implementing a competency based learning program in pre-school through 3rd grade and implementation of 21st century approaches as well in upper grades.

They believed it should be the role of the State School Board to convene an effort that included local school board members to organize and develop criteria, and develop (flexible) protocols for districts to engage their communities, provide (and receive) coaching, and implement portfolio-based assessments. They wanted to see an approach that empowered local schools to make transformative change, and believe that this would require flexibility for teacher reflection and flexibility in scheduling. They envisioned a facilitated “cross-pollination” of schools.

#5. Develop a systematic approach to professional development

This idea could easily overlap with several of the others above. It focuses, however, more on the experience of educators in schools, with the creation of communities of

educators implementing experiential and competency-based learning approaches. To help educators develop their programs and to learn from one another, the group called for time to be built into the school day and week; e.g. early release Mondays, early release days.

They wanted to see an expansion of externships that allow educators to experience the workplace in a range of industries across the state, supported by stipends, and re-certification credits during breaks from the school year.

All of this will require investment and commitment on the part of local school districts, chambers of commerce, community groups and other community stakeholders. These include trade unions and other potential business partners who might work together to develop criteria for an expanded apprenticeship program.

And the group felt it was important to expand the effort to engage and involve the parent community as well, through parenting classes, increased early childhood support and the development of a more welcoming, transparent environment in schools.