



NEW MEXICO
Education Speaker Series

Connecting Challenges with Ideas & Strategies

– NOTES –

Session VIII: Coherent Pathways That Include Rigorous Career and Technical Education

January 14, 2019, Thornburg Campus

This is the eighth of a nine-month lunch series bringing together education and business leaders from around the state to learn from national and local experts about promising and best practices in education in high-performing systems. Participants will engage with each other on possible education reform in New Mexico. The group is using the report titled *No Time to Lose: How to Build a World-Class Education System State by State* created by the National Conference of State Legislatures as a guide.

Speakers:

Keynote: *Gary Hoachlander*, President of ConnectEd: The California Center for College and Career

NM Context: *Tony Monfiletto*, Executive Director, Future Focused Education

Moderator: *Tony Gerlicz*, Inspire Santa Fe

Hoachlander:

Linked Learning: Bringing Life to School

ConnectED partners with school, district, and community leaders to transform education, through Linked Learning Pathways, for all students, regardless of background, to be prepared to succeed in college, career, and civic life. The objective is to transform education so that rigorous core academic courses are linked to the real world, making them relevant to high school students. Since 2010, they have worked with nine, large unified school districts in California and more recently with school districts near Detroit, Boston, and the Great Lakes. The career and technical education (CTE) courses and themes are integrated into the curriculum to prepare students for college *and* career. It is *not* a dual track program.

In most places, the high school classroom structure has not changed much over the past 100 years. Seven thousand students drop out every day, which represents \$154 billion of lifetime earnings lost every year. Working with districts, employers, and communities, comprehensive, linked learning pathways, with themes such as healthcare, are developed for groups of 400-500 high school students. The core academics are redesigned based on the theme, to integrate with a cluster of CTE courses. Teachers work with employers to learn how to relate their core academics to the theme. They are trained in team teaching

and interdisciplinary, project-based learning. A major barrier is breaking the mindsets educators and parents formed when they were in high school themselves.

Independent surveys have shown that students in high-quality linked learning pathways have improved communication and teamwork skills, are more likely to graduate (5 to 9%), and earn up to \$2,000 more annually in the eight years after high school graduation. The improvements in achievement and persistence in post-secondary programs is especially strong for the lowest achieving students. Success flows from high quality, comprehensive-linked learning pathways based on four components: (1) college preparatory academics with real world application; (2) cluster/sequence of career and technical education, with industry certification; (3) continuum of work-based learning; (4) personalized student supports.

Monfiletto:

The Best Education for the Students Who Need It the Most

The graduation rate for Albuquerque Public Schools is 68%. On average, the dropouts who find jobs earn 37% less. In 2016, unemployment for 16-19 year olds in Albuquerque ranked 94th out of the nation's 100 largest cities. A network of four schools and 20 employers have been established to develop paid internships for students to keep them in school and to provide them positive work experience that will help them succeed in college and career. Their program was designed to be practical, just, and local. Community-driven solutions were focused upon.

Employers, teachers, and school leaders initially convene to create a high-level draft of a job description. They then conduct a site visit to identify internship specific tasks and finalize the job's requirements. They also work with the schools on curriculum design. The employers pay \$10 per hour for the interns. Future Focused Education receives 35% of that to run the program. Interns conduct self-evaluations and receive evaluations from their mentors based on the US Department of Labor Competencies. The job descriptions are revised after the end of the internship. The interns receive a transportable, experience-based credential. Finally, they learned that you need to provide ongoing support so students stay connected with mentors and do not fall back into dead-end jobs.

What New Mexico can do:

- Encourage districts and tribal governments to work with their communities to develop Graduate Student Profiles
- Survey the State for examples of best practices in integrating CTE into the educational curriculum and engaging employers; recognize and support those districts/schools.
- Issue an RFP from the PED for high-need districts on planning grants to develop linked learning pathways and then provide strong, focused support for implementation to the districts with the strongest plans
- Issue an RFP from the PED to the RECs on planning grants to develop linked learning pathways for small, rural districts and then provide strong, focused support for implementation to the RECs with the strongest plans
- Develop standards for high-quality, comprehensive, linked learning pathways
- Develop policy incentives and resource flexibility for schools and districts on developing high-quality, comprehensive, linked learning pathways

Methodology tips:

- Do *not* support dual track or CTE programs that are not integrated with the core academic curriculum
- Do *not* force districts or schools to develop linked learning pathways
- Focus resources on pilot efforts that use high standards
- Learn from national and international leaders in rigorous, integrated CTE programs for college *and* career
- Review initiatives for practical, just, and local impact

“Most high school classrooms have not changed much over the past 100 years; 7000 students drop out daily, losing \$154 billion of lifelong earnings annually,” Hoachlander.

“Integrating Career Technical Education with rigorous core academics provides relevant learning to high school students, yielding improved skills, achievement, persistence, and earnings,” Hoachlander.

“Our growing program of paid internships with collaboratively designed job descriptions and competency-based evaluations involves 4 schools, 20 employers, and over 60 students,” Monfiletto.

“Young people are the answer to the health and prosperity of our communities,” Monfiletto.



LANLFoundation.org/SpeakerSeries

Appendix: Detailed Notes

Gary Hoachlander, President of ConnectEd: The California Center for College and Career

- In Linked Learning programs, they love to celebrate student work.
 - Career Technical Education (CTE) plays a critical part, but it is not an initiative or a program, rather it is integrated into a coherent high school education experience.
 - There are NOT two tracks.
 - It is an approach to high school that prepares students for both college and career.
- ConnectEd was founded in 2010 by the James Irvine Foundation with a focus on linked learning; it is now a national center as we have moved beyond California
- At a recent forum with students from southern California, there were students from Hollywood High who had created a 2 minute video trailer for a documentary on discrimination
 - As part of this project students read about discrimination, learned physics on how cameras work and statistics on how discrimination is measured as well as learning about storyboards and editing
 - I asked the students to whom did they get to pitch it
 - They pitched it to the VP of MTV
 - I asked what he said to them
 - He told them that “Spelling matters!” and now they believe it; it didn’t register when their teacher said the same thing
- This project is an example of authentic preparation for college
 - A cluster of CTE courses that constitute not a CTE initiative but rather a school transformation initiative that involves CTE with personalized student supports
- Preparing all students for college AND career – NOT dual track
 - We include all forms of higher (post-secondary) education from apprenticeships to 4-year college
 - Not every high school is like Hollywood High
 - High school doesn’t work in many places
 - High school classrooms too often haven’t changed over the past 100 years
 - We lose 7000 students a day through dropouts with disproportionate numbers of African American and Latino students
 - The social and economic costs are staggering; \$154 billion in lifetime earnings are lost every year
 - Need to make math, science, English, social studies more **relevant** to students
 - CTE alone can’t produce career success
 - Need a new approach that prepares students for college AND career.
 - If students take CTE, they will tend to take 3-4 courses, so we need to improve the other 22 courses
- Linked learning is as much about the core courses as about CTE – create college AND career pathways: learning that is linked to the real world
- Showed video from Health Professions High School in Sacramento – a certified Linked Learning Academy
 - Students learned how lasers are used in medicine and the underlying science of lasers
 - Learned about how to catch a fever as well as the math of pandemics, etc.
 - Common language with units done together across disciplines
 - Teachers put on scrubs to keep their teaching near the topic of health
 - Students wear scrubs as a uniform to remind them also

- Trying to improve the diversity of leaders in the healthcare field
- Encourage students to persevere through a rigorous curriculum
- Gary asked for feedback on the video
 - How do students get to transfer districts to attend a school that is not focused on healthcare, but say, on computers?
 - Gary - Sacramento Unified has 7 or 8 comprehensive high schools with 4 or 5 pathways including education, which is a major employer; students can choose the high school and their pathway
 - My mom is a dean at an access college in Texas where they developed contracts students sign in 8th grade that if they follow through on their high school courses they are guaranteed a slot in an associates or college program. Are we constraining their options by making them choose so early?
 - Gary – we don't want to force students to choose a career in 9th grade; the goal is to bring a focus to the academic courses where we train teachers on real world applications
 - Gary - At Long Beach Unified if you graduate from a Linked Learning Academy they guarantee admittance to any subject at Cal State Long Beach – the students have demonstrated the proficiency to make post-secondary accessible and productive
 - What about rural districts?
 - Gary - It's a challenge to deliver a high quality education in a very small high school; the purpose of the theme is not career but coherence and meaning in the curriculum; it's a big problem to do that in small schools
 - Work with tribal communities on assessing what are their needs to provide students a direct link and sense of belonging to the community; does this fit your program?
 - Gary – absolutely; context is so important; each community needs to define what is important
- Reviewed the one-page handout on the complete curriculum at Health Professions High School
 - They apply the health theme to the core academics and didn't dumb them down but rather made the core academics relevant, e.g., reading non-fiction related to the health field high-school-wide;
 - Look at the number of post-secondary and employer partners
 - Many ways to do this – no one right way – there are wrong ways
 - Like to see 400-500 students in a pathway
 - Examples of approaches: High Tech High in San Diego, New Tech, P-Tech (focus on 9 to 14, while we focus on 9-16 pathways), Big Picture, Early College
- The four core components of comprehensive linked learning pathways
 - College preparatory academics with real world application: academic core has more emphasis on project-based learning, interdisciplinary, team teaching
 - The key barrier is overcoming the mental models of educators and parents created when they were in high school
 - Cluster/sequence of CTE with industry certification (at least one CTE course for each grade)
 - Continuum of work-based learning (shadowing → internships) – it's not job experience;
 - Example from Palmdale High School: all 125 seniors spend 3 days a week in the morning at health-related facilities with their classroom teacher and, say, a physician's assistant where they learn how to do EKGs with real patients, while

in the afternoon their learning in class about the body's electrical system, providing an immediate link of the academic knowledge to the real world

- I learned more about my body there than I did in high school or college
- Personalized student supports – college/career counseling, social-emotional supports, and specific academic supports to make up for gaps in students learning
- Showed list of America's 15 major industry sectors which provide broad themes to which core academic courses can be connected (need broad not narrow themes to have rigorous, connected core classes)
 - California organizes CTE around these 15 areas – broad definition is key
- Quality matters – worked with partners on the core features of high quality CTE
 - Student outcomes-driven practice
 - Equity, access, and achievement
 - Program of study (needs to be strong, comprehensive, rigorous)
 - Changing learning and teaching (especially for the core academic courses: from theoretical, single discipline → real world, cross disciplinary)
 - Work-based learning
 - Personal student support
 - Pathway leadership and partnerships
- What we brought to the issue was building systems of CTE
- How we know it is working: SRI International did a survey of students in certified pathways
 - 20% more pathway students report improved communication and teamwork skills
 - Accrue more credits – equivalent of more than 2 courses
 - More likely to graduate (5-9%)
 - Significant achievement gains for lowest achieving students
 - Enroll and persist in postsecondary programs at equal or higher rates (+12% for African Americans)
 - From MDRC – students earn as much as \$2500 more annually in 8 years after high school graduation (equivalent to bump from an AA degree)
- Building a sustainable system of college and career pathways
 - Define what students need to know and be able to do: The Graduate Student Profile
 - Design and implement high quality pathways to produce those outcomes
 - Transform learning and teaching – e.g., collaborative teaching
 - Create district/community systems to continuously improve and sustain the work
- Example from Austin Elementary in Boise, ID, where kindergarten teachers students asked to draw a butterfly from a photo of a yellow swallow tail
 - In most places the drawing would be the end after one round
 - At Austin, the teacher gathers students to critique the drawing of another student who listens and then draws another butterfly
 - The process leads to improved drawings and the critiques continue until the students say the other student has nailed the drawing
 - Result would normally be considered the product of a gifted student; it wasn't; it was the product of a better learning process with continuous improvement embedded
 - At Austin, first and fourth graders team to draw birds based on research by 4th graders which they sell as greeting cards to raise money for the environment
- Lessons learned from Austin
 - High expectations

- Success depends on practice and revision to clear standards and with thoughtful direction
- Be an artist, be a designer, be an entrepreneur, don't pretend
- Austin is an expeditionary learning school – among the best approaches to project-based learning
- Work with adult professional on real problems and projects
- Focused persistence can trump talent and resources
- Learn more at www.connectednational.org

Tony Monfiletto, Executive Director, Future Focused Education

- Conducted an interactive exercise with augmented reality using app (PHOTBLOOM AR) on smart phones to bring in student voice, so young people could talk directly about their learning; this is part of a display that they take around the State
- Started an incubator focused on dropouts which evolved into a hub and then into a policy center
 - Wanted to acknowledge that Health Leadership School received a generous gift from Thornburg to promote interest and training in early childhood education
 - Started the incubator because dropouts tend to be put into a mill to grind out graduates, which doesn't provide the help they need
- Whatever we do has to be practical, just, and local and have impact in those areas – community-driven solutions
- Graduation rates for Albuquerque Public Schools are 68%
 - The dropouts who find jobs earn 37% less others
 - Unemployment for 16-19 year olds in Albuquerque ranked 94th out of nation's 100 largest cities in 2016 (Brookings Institute)
- Introduced Melissa – a recent graduate from South Valley Academy one of our 4 partners
 - Melissa – I had an opportunity to do an internship as a junior, working at a real estate agent
 - I'm shy and quiet, so the job forced me out my shell
 - I learned Excel, Quick Books which helped me get a job after graduation as an assistant and now I'm a manager
 - My boss told me that I got the job based on my soft skills;
 - Now I'm at the Future Focused Education learning how to do fundraising – throughout I've continued college –
 - Getting work experience in high school will help you get a part-time job in college; it helps you see your own potential
- Paid internship program – 4 schools in our network - each has career themes
 - Our strategy is to create a two-sided network
 - Intermediary ← → Platform ← → Young People
 - Many young people do not have good work experiences
 - They are treated badly, as expendable
 - They do not know about professional settings
 - They need a different kind of work experience – they need to be paid and have internships that last over one year
- Approach
 - Co-developed job descriptions for the interns
 - School curriculum design

- Evaluations based US Department of Labor Competencies (ongoing feedback & improvement that evolve the job descriptions)
- Transportable, experience-based credential
- Ongoing training and support, post-graduation
 - What we learned is that you need to have ongoing support so students don't fall back in to dead-end jobs and so they stay connected with mentors
- Steps
 - Convene employers, teachers, and school leaders
 - Create a high level first draft job description
 - Conduct a site visit to identify internship specific tasks
 - Finalize the job descriptions
 - Revise after the end of the internship
- Showed example of an intern performance review: review includes both a self-evaluation and a mentor evaluation
 - Responsive thinking
 - Lifelong learning
 - Participation in the workplace community
 - Community- or client-driven
 - Cross-context application of knowledge and skills
- Conclusion – need a relationship between policy and practice – (life-giving work experience) schools need incentives to do this
 - The Thornburg gift will help us address the early education needs of the community

Discussion

- Tony Gerllcz – students need to see the relevance of what they are doing
- John Gulas – young people will say I didn't know what I needed to learn; is the goal to give students real experience, so they know what is important?
 - Gary – not just to be aware of what they need but to experience it, say. using the math – the key is the doing
- What are the costs of the scaffolding behind this approach: community partners, training teachers across disciplines, etc.?
 - Tony – need people and teachers dedicated to building partnerships; every quarter we hold pitch sessions for employers to present what they need and then talk with teachers on building projects that could meet those needs
 - Gary – there is a lot of work to build capacity of teachers, especially those teaching core academics, on project-based and interdisciplinary teaching;
 - We provided each of the nine districts \$1 million annually over 4 years to do this; given the size of the districts that was a small amount compared to their overall budgets; it's more about using resources differently
 - Tony M – teachers have told me that learning what students needed to know is actually professional development
- Jessica Nojek – had an employer ask me why would I want to hire high school students
 - Melissa – think about your return on investment (ROI)
- Cynthia Nava – taught gifted education and that's how we did it; by not doing it for others, we were perpetuating the inequity
- Jenny Parks – how do we scale it and make it more the norm; it is one of the tenets of the *No Time to Lose* report? Do we do it through policy?
 - Gary – started in California with 9 large school districts and built partnerships with national associations to help us; no single organization has all that you need to do it

- at scale; started with 6-8 high quality pathways in each of the 9 districts; now have over 500 in 50 districts but we have major quality issues; started to work with 8 schools in Detroit (now 20), working in Boston, and in 4 Great Lakes communities; if you go this route, you need to find a way that is not a programmatic strategy, i.e., not just a program within a school
- Tony – have 4 schools in our network; starting to work with a school in Memphis; the key is sitting down with an employer and a teacher on what students need to learn to align interests
 - Gary – you cannot force anyone to do this; we issued an RFP to high-need districts for a planning grant (one-year) → awarded 10 grants then funded 8 to follow on and added Oakland Unified; in Detroit we had to work the screening high schools directly as the district was dysfunctional
 - Jeannie – a state can do this too through a pilot program and an RFP; can convert professional development dollars
 - Gary – California has invested about \$0.5 billion in CTE; the legislature and the education department did not focus enough on what constitutes high quality pathways also there was political pressure to distribute the resources; encourage you to do a pilot and support them intensely
 - Jeannie – schools also have access to Perkins grants
 - Gary – agree especially for CTE, but this is about college and career
 - Tony M – are kids are paid by the employers through us (\$10 per hour, we take \$3.50 to manage the program, we have 20 employers) – build the platform that makes the connections – needs to be demand driven; the employers need to have skin in the game; we have grant funding to underwrite the program, which is not paying for itself yet
 - Based on experience with New Mexico First, principals and vice principals are the gatekeepers, so need to get them excited about pathways; I contacted some principals, who thought it was a great idea, but they didn't have time for another initiative; a magnet principal said that they were already doing it; how do we overcome this?
 - Gary – you do need site leadership that understands the approach and is committed to revise the master schedule for team teaching and cohort programming for students as well as professional development for teachers and work-based learning; to find the principals that are willing to do this is why we went through an RFP process; you can't force them
 - Tony M – change assessment system to number of students that are gainfully employed; move away for compliance driven approaches; policy incentives are needed
 - We're looking at funneling Perkins funds through the regional development corporations; I'm thrilled to hear this; it's generally not happening at our schools
 - Gary – just be careful about Perkins driving stovepipes in CTE – e.g, Project Lead the Way courses for engineering – only engineering teachers qualify for professional development support – watch out for isolation
 - Tony G – asked for table discussion about what we learned and what the next steps should be
 - CTE is an integrated part of education – find partnerships and build capacity
 - Connor Browne - need a platform for policy; business – education partnership on listing the skills we need