

Roughrider Area Career & Technical Center Directors Report November 2017

Meetings

December 5 – DSU Practicum Day for ITV/online students

December 6 – Board Meeting Cancelled, no items requiring action

December 14 at 10:00 – CTE Virtual Centers Collaboration meeting in Washburn

December 14 at 12:30 – Great Western Network Board Meeting in Washburn

January Board meeting. Should we have it at the Elks and have a meal together? Let me know your thoughts.

High Technology Equipment

I attended one day of the embroidery machine training on November 6. The RACTC consortium was well represented with a total of 5 teachers attending. The following schools attended the training Killdeer, South Heart, Hettinger and Glen Ullin.

I rotated equipment last week before the Thanksgiving break. We are starting our third rotation.

Belfield – 3D printer

Hettinger – Laser Engravers

Mott/Regent – Mechanical, pneumatics and hydraulics modules

New England – CNC router

Scranton – Embroidery machines

South Heart – BN20 vinyl printer/cutter

The following are the trainings available this year. We currently have 3 teachers signed up for the CNC training and no one signed up for the Bio Chem training. Both of these trainings are in Mandan at Global Technology. We are looking at adding a 3D printer training in January.

Dec 4 – 5: CNC (Router & Mills)

Dec 12 – 13: Bio-Chem

The new BN20 module is nearing completion. This module will be a standalone module and will be ready for delivery after the first of the year. The new 3D printer module is in use and being used by students in Glen Ullin.

CTE Directors Meeting

I was in Devils Lake on November 7 and 8 for a CTE Directors meeting. Wayne Kutzer, ND State CTE Director, schedules several of these meetings throughout the year to discuss current issues in CTE and showcase Career and Technology Centers throughout the state.

On November 7 we toured the Lake Region Technical College Precision Ag Program and the Bergstrom Tech Center. The programs that stood out to me was the nursing program, wind tower technician program and the flight simulator repair program.

Our state director compiled data showing the dual credit opportunities that Career Centers are offering students, which led into discussions. The RACTC offers dual credit for Animal Science and Medical Terminology through DSU.

The innovation bill was discussed (SB2186). The director from Fargo discussed an innovative learning approach being offered to students in Northern Cass called the Jaguar Academy. The following is the introduction that I cut and pasted from the Northern Cass website. This model promotes accelerated learning as 8th and 9th graders freeing up time as juniors and seniors to explore Career and Tech Classes, apprenticeships and on the job training opportunities. The following is the link for their website <https://www.northerncassschool.org/domain/192>. I just googled Northern Cass Jaguar Academy and found the info.

Welcome to the Jaguar Academy

For us to 'live' our why, we must commit to meeting students where they are at as individual learners. Throughout the past year, Northern Cass has studied Mass Customized Learning (MCL). MCL utilizes research-based methods of individualizing learning to allow learners to reach their potential at a customized pace.

The Jaguar Academy will be our first attempt to bring MCL to Northern Cass. Students in 8th and 9th grade who opted to participate will work at their own pace in a customized environment. An instructional model based on proficiency will be utilized. In this model, students must be proficient before moving on to another topic. Students will also choose to work towards applied learning. Applied learning requires students to demonstrate their skills at a level above proficiency in a manner which has value beyond school.

Northern Cass has established an ambitious goal of moving towards a MCL model for the entire district. Senate Bill 2186 (Innovation in Schools) allowed us to propose a plan for innovation which linked to the Jaguar Academy. Our proposal was approved and we have begun changing the paradigm of teaching and learning in our district.

On Wednesday, November 8 we started with a business meeting for our professional organization led by our President Mike Hanson, Director of the North Valley Career Center in Park River.

We then toured the Lake Area Career and Technology Center offering building trades, welding, culinary arts, marketing, business, information technology and auto mechanics to high school students in Devils Lake.

We also had a webinar from Microsoft on the Teals Program. The following is a blurb from their website. I will also attach the pamphlet we received at the conference if you want more info.

TEALS helps high schools build and grow sustainable computer science programs through partnerships between classroom teachers and tech industry volunteers. They work as a team to deliver CS education to students who would otherwise not have the opportunity to learn CS in their school.

Over two years, the classroom teacher gradually takes over the responsibilities of teaching the course without volunteer support. The team-teaching and volunteer system of TEALS creates a strong ripple effect: it empowers teachers who can multiply the impact by providing computer science education to hundreds more students over the years.

TEALS was founded in 2009 by former high school CS teacher and software engineer Kevin Wang and is supported by [Microsoft Philanthropies](#).

DSU Practicum Day

On Tuesday, December 5 students from our ITV classes will be on the DSU campus to work with the DSU Nursing program and after lunch have the opportunity to listen to and ask questions from Health Care Professionals from Dickinson. I will attach the agenda for the day. If you would like to observe, board members are welcome.

RACTC Schedule for 2018/2019

I have been making my rounds to schools to start the planning process for the 2018/2019 school year. I have been to Scranton (ITV Ag Classes), Glen Ullin (Online Business Classes) Hebron (Vet Science Class) and South Heart (ITV Information Technology Classes) to discuss class options for next year. My plan is to visit Richardton next week to discuss marketing classes.

On Tuesday, November 28 I met with Lyle Krueger, the Director of the Missouri River Area Career and Technology Center in Bismarck (MRACTC), to discuss how we can work together to streamline and make course offerings to our students more efficient. Currently we have students taking classes from the MRACTC and they have students taking our classes. We decided to meet with Wayne Kutzer, State CTE Director, Bill Strasser, Great Western Network Director and Kim Murphy, CTE Director from Williston, at 10:00 December 14 in Washburn to discuss classes for next year and how to be more efficient in the delivery of Career and Tech classes for students in Western North Dakota. I will report to the board the discussions that we have

Article of Interest

Schools are trying to be innovative such as the Jaguar Academy to free up more time for juniors and seniors to explore careers. This article states it best on why CTE classes are important to our students. To be successful all students need a rigorous curriculum that includes CTE classes.

Career and Technical Education Should Be the Rule, Not the Exception

by Tim Hodges

It's hard to argue with the success of Career and Technical Education (CTE) programs, which teach transferable workplace skills and academic content in a hands-on context. U.S. Secretary of Education Arne Duncan recently characterized CTE programs as providing "instruction that is hands-on and engaging, as well as rigorous and relevant." He went on to say that CTE programs "are helping to connect students with the high-demand science, technology, engineering and math fields -- where so many good jobs are waiting." Furthermore, in recognizing CTE month on the House floor, Rep. James Langevin recently stated, "CTE is an investment in the future of our economy, our workforce and our country."

Despite these benefits of CTE, only about one in four students (28.6%) earned five or more CTE credits, according to the most recent data from the National Center for Education Statistics. Most students have some interaction with CTE during their high school experience, but few are immersing themselves in CTE programs.

One reason why more students are not pursuing CTE programs is that critics characterize it as a track for students who are less likely to attend college. This line of thinking is detrimental to students, employers and the future of our country. Students should no longer need to decide between college readiness and career preparation -- it's possible and increasingly necessary to achieve both.

A recent Gallup-Lumina Poll found that when hiring, U.S. business leaders say candidates' knowledge and applied skills in a specific field are more important factors than where the candidate went to school or what their major was. To be successful in the workplace, college-bound students still need specific knowledge and skills, which they can get from CTE programs.

Additionally, the Gallup-Purdue Index finds that college graduates who had an internship or job in college where they were able to apply what they were learning in the classroom, who were actively involved in extracurricular activities and organizations, and who worked on projects that took a semester or more to complete, doubled their odds of being engaged at work. Yet, just 6% of college graduates say they had all three

of these experiences. These are exactly the types of experiences that CTE programs offer to students.

Critics may argue that enrolling in a CTE program may divert college-bound students' attention away from college preparation classes. However, a recent study found that 80% of students taking a college preparatory academic curriculum with rigorous CTE met the standard for college and career readiness, compared with 63% of students taking the same academic core without rigorous CTE. Further, while national graduation rates have inched up in recent years, students with a concentration in CTE are nearly 15 percentage points more likely to graduate high school than the national average. These data suggest that whether students take one CTE course or enroll in an entire CTE program, CTE should be a part of every student's education.

As a student, I was actively involved in a variety of CTE programs. While the experience I gained through livestock judging may not seem like it directly prepared me for my role at Gallup, I often rely upon skills such as:

- working long hours toward a goal
- building relationships with instructors both in and out of the classroom
- keeping accurate records and managing budgets
- fundraising to cover the cost of materials, registration fees and travel
- representing the school or even the state at contests
- the joy of winning and the agony of defeat
- being part of a team
- serving as a mentor and being mentored by others

Regardless of the actual content being taught, these experiences build the transferable skills that lead to success in college and career, while painting a realistic picture of the future students will face in the working world. CTE should not just play a prominent role for a few students; it should be the new normal in education.

GO Bison!

I am headed to Fargo Friday afternoon to watch the playoff game on Saturday between NDSU and San Diego.

