Trade Adjustment Assistance Community College and Career Training
Third Party Evaluation Report – Spring 2014 Instructor Interviews

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Background:

The TAACCCT third party evaluators conducted a series of TAACCCT participant interviews during March, 2014. The purpose of these interviews was two-fold:
- To maintain and strengthen relationships with grant participants
- To collect growth data around the implementation of the grant deliverables

Spring Interview Process:

The TAACCCT third party evaluators met in February to determine the interview process at each of the four institutes and to create a series of questions to ask each individual instructor. The key instructors at each site were again identified along with any new instructors or support staff. One new staff person was identified at STI: Casey Vis, lab assistant. The 2014 Spring interviews were focused on the instructors, whereas the 2013 Spring interviews also included Student Success Advisors, Retention Coordinators, Grant Support Technician, Instructional Facilitator, and Instructional Support Specialist. The questions for the interviews were focused on the grant deliverables and the role that instructors play on the path to achieving those deliverables, as compared to the priorities focus in the 2013 interviews. The instructors were also asked to assess their instructional growth over the last year using the TAACCCT Targeted Instructional Rubric.

Priority 2: Improve retention and achievement rates and reduce time to completion
- Strategy 1: Ensure at-risk students' academic success and on-time graduation
  - Deliverables:
    1. Student Success Toolkit.
    2. Student Success Train the Trainer Model
    3. Student Success Toolkit posted on WACCAL Best Practice Forum
    4. 90% of at-risk students in success program will remain on track to complete program requirements successfully and on time.

    ➔ What strategies do you use to identify students that are struggling with academic success?
    ➔ What interventions have you implemented to address students struggling with academic success?

Priority 3: Build programs that meet industry needs, including developing career pathways
- Strategy 2: Develop and deliver online Green Energy Production industry focused AAS degrees, diploma (certificate) programs and registered apprenticeship programs.
  - Deliverables:
    1. Online standards document
    2. Agriculture curriculum and blended learning online program at LATI.
    3. Industry Controls curriculum and blended learning online program at MTI.
    4. Mechatronics curriculum and hybrid learning online program at STI.
    5. CAD curriculum and hybrid learning online program at WDT.
    6. Curriculum for two registered apprenticeship programs in green energy production industries.
    7. 74% attainment of Green Energy Production related diplomas (certificates) and degrees.

    ➔ Is the curriculum for your course completed? If not, what is left to do?

➔ How does the content and structure of this course meet industry needs and how do you know?
➔ What have you learned that you might implement in coming years to improve the quality of this course? On what data did you base your decision to make changes?
➔ Is there anything else you would like to share about the development and/or delivery of the online course?

Priority 4: Strengthen online and technology-enable learning
- Strategy 3: Enhance virtual and simulation technologies enabling SD to change (improve) the way we teach technical skills.
  - Deliverables:
    1. Courses offering simulation and online components implemented at each TI utilizing a minimum of three new technologies.
    2. Technology research and assessment posted on WACCAL Best Practices Toolkit Website.
    3. Technologies implementation instructions.

    ➔ The deliverable for this priority is that each technical institute will implement a minimum of three new online technologies by the start of year three. What new technologies are you using to strengthen online and technology-enabled learning?

*Question Protocols are included in the appendix.

Table 1: Interviewees

Interviewee	Role	Institute
Dale Moke	Instructor	Mitchell Technical Institute
Bryan Cox	Instructor	Southeast Technical Institute
Casey Vis	Lab Specialist	Southeast Technical Institute
Brian Olson	Instructor	Lake Area Technical Institute
Laurie Johnson	Instructor	Lake Area Technical Institute
Darrel Woolery	Instructor	Lake Area Technical Institute
Jim Clenendin	Instructor	Lake Area Technical Institute
Todd Anderson	Instructor	Western Dakota Technical Institute
James Loverich	Instructor	Western Dakota Technical Institute

Interview Data Analysis:

Instructor Background Information:

Eight instructors deliver the TAACCCT online/hybrid green energy courses. All eight instructors are certified technical education instrutors by the state of South Dakota. At least six of the instructors have industry experience ranging from one year to twenty-seven years of experience. Teaching experience ranges from 3 years to more than 33 years of experience.   Also, instructors vary in their experience with online teaching. For at least three instructors, this grant marked their first experience with online teaching.

Online Courses Development and Implementation Background Information:

All four schools associated with the TAACCCT grant have successfully implemented online/hybrid green programs of study with either diploma or degree completion status.   All four schools have demonstrated the necessary experience in designing, facilitating, and implementing an online course matched with existing standards, existing online protocol, and comparable to already established face-to-face courses. Instructors at each location are required to learn more about online facilitation and instruction. Within each institute, a Learning Management System (LMS) is in place to help student retention and provide strategies for more effective learning and instruction. Additionally, each institute has incorporated new technologies to help with instruction and learning. Students in each location's program will be compared to a comparable face-to-face cohort to meet grant evaluation requirements. The first year of coursework is complete at each institute, with the second year in progress. At the time of the instructor interviews, an extension had not been granted.

Each institute formed committees to design and deliver online curriculums and all instructors were involved in that process. Each institute strives to align online curriculum as closely as possible to the already established traditional classroom curriculum. All four institutes used industry partners to help develop curriculum.

All four institutes strive to have online standards match already established standards practiced in traditional classrooms. Although each institute has developed standards for its online course, each institute continuously tries to improve upon the online curriculum.

While all four institutes strive to provide instructional support for all online instructors, two of the four institutes offer online courses or trainings to online instructors to enhance online instruction.

All four institutes have established relationships with industry partners. The role of industry partners varies according to institute. Industry partner roles include, but are not limited to: serve on advisory boards; supply students to the new green programs of study; share current trends and expectations of industry; provide key pieces of equipment, internships, apprenticeships, and/or help design curriculum.

Three of the institutes implemented technological updates to enhance infrastructure to meet the grant objectives; the remaining institute made infrastructure updates prior to the TAACCCT grant. Most of the infrastructure updates were in the form of software purchases or capacity enhancements; some of the updates were physical enhancements such as: fiber links, iPad purchases, classroom computers, and/or the purchasing of an Apple TV. Additionally, all four institutes incorporated a LMS.

Interview Data Analysis:

The TAACCCT grant's success is measured by the successful implementation of three priorites. The evaluators used these priorities and their corresponding deliverables as the framework to gather data for the Spring 2014 Instructor Interviews.   The instructors were asked questions specific to their role in reaching the deliverables within each priority.

Priority 2: Improve retention and achievement rates and reduce time to completion
- Strategy 1: Ensure at-risk students' academic success and on-time graduation
  - **Deliverables:**
    1. Student Success Toolkit.
    2. Student Success Train the Trainer Model
    3. Student Success Toolkit posted on WACCAL Best Practice Forum
    4. 90% of at-risk students in success program will remain on track to complete program requirements successfully and on time.

      ➔ What strategies do you use to identify students that are struggling with academic success?
      ➔ What interventions have you implemented to address students struggling with academic success?

      Course design and delivery, as well as instructor intervention, strategies contributed to the success of at-risk students or those struggling with academic success. In general, student participants in the online/hybrid green energy programs have full time jobs and are supporting families. This alternative to face-to-face instruction offers a variety of advantages: reduced time for completion; self-paced curriculum; and flexible deadlines.

Definition of At-Risk Students as defined by the Leadership Committee (also addresses academic success & on track and on time)
- At-risk students are defined based upon sub-standard achievement, with attendance as well as academic performance on indicators. This would include any student who is identified as in danger of not receiving financial aid because of not maintaining a 2.0 GPA, completing 67% of coursework, or not meeting attendance requirements.
- At-risk students are provided Student Success Toolkit strategies which may include remedial education, tutoring, and one-on-one assistance.
- Any student we identify as "at-risk" AND who also receives assistance from the Student Success Toolkit then becomes a grant participant and we will need to report on them annually.

Priority 3: Build programs that meet industry needs, including developing career pathways
- Strategy 2: Develop and deliver online Green Energy Production industry focused AAS degrees, diploma (certificate) programs and registered apprenticeship programs.
  - **Deliverables:**
    1. Online standards document
    2. Agriculture curriculum and blended learning online program at LATI.
    3. Industry Controls curriculum and blended learning online program at MTI.
    4. Mechatronics curriculum and hybrid learning online program at STI.
    5. CAD curriculum and hybrid learning online program at WDT.
    6. Curriculum for two registered apprenticeship programs in green energy production industries.
    7. 74% attainment of Green Energy Production related diplomas (certificates) and degrees.

      ➔ Is the curriculum for your course completed? If not, what is left to do?

      ➔ How does the content and structure of this course meet industry needs and how do you know?

➔ What have you learned that you might implement in coming years to improve the quality of this course? On what data did you base your decision to make changes?
➔ Is there anything else you would like to share about the development and/or delivery of the online course?

TAACCCT grant participants at each of the four institutes are confident that their green energy online/hybrid courses meet industry needs. Each program has an **advisory board** consisting of partners working in the industry and their role is to share current trends and expectations of industry. Additionally, all institutes seek ongoing input from graduates and employers about how prepared students are to meet the demands of the job and use that information to revise programs to meet industry needs.

Three instructors identified their **years of experience** working in the industry as an asset designing courses that meet industry needs.

Priority 4: Strengthen online and technology-enable learning
- Strategy 3: Enhance virtual and simulation technologies enabling SD to change (improve) the way we teach technical skills.
  o **Deliverables:**
    1. Courses offering simulation and online components implemented at each TI utilizing a minimum of three new technologies.
    2. Technology research and assessment on WACCAL Best Practices Toolkit Website.
    3. Technologies implementation instructions.

       ➔ The deliverable for this priority is that each technical institute will implement a minimum of three new online technologies by the start of year three. What new technologies are you using to strengthen online and technology-enabled learning?

The TAACCCT **instructors** have roles in the successful implementation of Priority 4. All four institutes have incorporated technology on an individual basis to meet the specific needs of each institute's curriculum. Incorporated technology has been in both software and hardware forms. As required of the TAACCCT grant, each institute is incorporating three new technologies to its curriculum. Examples of technology enhancements include: Ethernet IP change (to one that is compatible with being controlled remotely); pneumatic trainers; Learning Objects; Popplet; Educreations; Podcasts; working on networkable PLC's; Circuit Challenge; Smartthinking; and Voice Thread.

<u>**Additional Information:**</u>

Program Tracking and Evaluation
Three of the institutes have a **comparison cohort** in place to compare their respective online/hybrid green program. Two of the three institutes found an acceptable comparison group from within the same program of study as the participant cohort. The third institute selected comparison students from a similar program of study (occupational outlook, educational material, industry type) within their own institution. The fourth institute will create a comparison cohort based on the participants registered for their program in the fall of 2014. Students in the online/hybrid green programs were matched as closely as possible to their cohort counterparts: age and gender being two main factors. When online/hybrid green programs could not be matched, institutes used programs that

used comparable software, required the same time for completion, and/or similar technical skills needed to successfully achieve a degree/diploma. In addition, all four institutes have established some form of feedback (surveys, course evaluations, instructor evaluations) to track performance and evaluate each respective program.

Marketing

All four institutes facilitated their own **marketing strategies** in-house. Each institute determined size and aggressiveness of their marketing campaigns, including when to start the campaign. The main mediums used for marketing were: word of mouth, mailing list, radio, and/or print.

Challenges and Learning

Some **challenges** identified with the **implementation of the TAACCCT grant** have been: generating student enrollment in each program, with the exception of STI; creating online programs; and, having ample time to fulfill grant expectations.

Challenges identified with the **design and delivery** of an online course include: communication with students at a distance; loss of one-to-one time with students; designing student collaboration with other students; making traditional physical, hands-on courses into online courses; assessment of skills; and, creating the course to be shareable with other educational institutes through an Open Education Resource (OER).

TAACCCT Targeted Instructional Rubric

The evaluation team designed an online instructional rubric using iNACOL (National Standards of Quality for Online Programs) www.inacol.org/resources/publications/national-quality-standards. The purpose of the rubric discussion was to help focus instructors on "best practices" with regard to online instruction and to determine where each instructor rated his/her self with regard to each component of the rubric in an effort to demonstrate growth over the last year. Instructors were asked to discuss evidence for the rating they chose. Instructors were assured that no individual information would be shared with TAACCCT leadership. This same rubric was utilized in the 2013 Spring Instructor Interviews.

TAACCCT Targeted Instructional Rubric

CATEGORY	NOVICE	BEGINNING PROFICIENCY	ADVANCED PROFICIENCY	EXEMPLARY
On-Line Curriculum	Much of the course is under construction, with a few key component identified.	Course is organized and navigable. Students can understand the key components and structure of the course.	Course is well-organized and easy to navigate. Students can clearly understand all components and structure of the course.	Course is well-organized and easy to navigate. Students can clearly understand all components and structure of the course. Additional materials related to successful

Instructors:

25.0% (2/8)

			Instructors: 50.0% (4/8)	strategies for completing online course are provided.
	Instructors: 0.0% (0/8)	Instructors: 0.0% (0/8)		Instructors: 25.0% (2/8)

Cited Evidence:
Zero (0%) instructors rated their course as Novice or Beginning Proficiency. Two instructors (25.0%) rated their course between Beginning and Advanced Proficiency, with one stating that they were trying new things and just needed more time to develop the course. The other instructor noted that their course was well organized and easily navigated and they responded to student emails concerning any components of the course. Four instructors (50%) rated their course at Advanced Proficiency with two instructors noting that student feedback has helped with organization and improvements to the courses. Three of the instructors felt their course was more organized than last year. One instructor mentioned that the LMS helps to lay everything out online and provides for immediate feedback to students on simple assignments. This instructor, however, felt they could improve with more interactive content. Two (25%) instructors rated their course between Advanced and Exemplary. One noted that their course was completely online as compared to last year, was more organized and assignments became available and closed when scheduled. Additionally, the other instructor noted the content was well organized, easy to navigate, and well understood. However, for this instructor, SmartThinking did not support the content of their class.

Instructional Resources	Course minimally uses digital content, resources and/or tools to supplement instruction.	Course uses adequate digital content, resources, and tools to supplement instruction.	Digital content, resources and tools expand and enhance the curriculum and content.	Use of digital resources and tools are integral to content, curriculum and instruction.
			Instructors: 12.5% (1/8)	Instructors: 12.5% (1/8)
	Instructors: 0.0% (0/8)	Instructors: 37.5% (3/8)	Instructors: 0.0% (0/8)	Instructors: 37.5% (3/8)

Cited Evidence:
Three (37.5%) instructors rated their course at the Beginning Proficiency level citing that they are using eLearning, but haven't incorporated additional tool such as Panopto; need more interactive online content; and have "tweaked" some of the information from the first time and had more students finish the second round which must reflect improvement. One (12.5%) instructor rated their course between Beginning and Advanced Proficiency, stating: there are lots of great things that I can see as an advantage, but I need to "get to them". Zero (0%) instructors rated their course as Advanced Proficiency. One (12.5%) instructor rated their course between Advanced and Exemplary due to the use of more tools such as Panopto, Educreations, and Mind Mapping. This instructor also noted that they had really expanded the use of digital technology in their course. Three (37.5%) instructors rated their course at Exemplary with one noting that the troubleshooting software used is very realistic and a useful tool for teaching students and that the use of the online server is critical to the software used within the course.

Instructional Design	Course provides limited visual, textual,	Course provides adequate visual, textual,	Course provides ample visual, textual,	Course provides multiple visual, textual,

kinesthetic, and/or auditory activities to enhance student learning and accessibility.	kinesthetic, and/or auditory activities to enhance student learning and accessibility.	kinesthetic, and/or auditory activities to enhance student learning and accessibility.	kinesthetic, and/or auditory activities to enhance student learning and accessibility.
		Instructors: **12.5%** (1/8)	
Instructors: **0.0%** (0/8)	**Instructors:** **25.0%** (2/8)	**Instructors:** **50.0%** (4/8)	**Instructors:** **12.5%** (1/8)

Cited Evidence:
Two (25.0%) instructors rated their course as Beginning Proficiency with one noting that they were still focused on developing the current material and had not added additional materials as of yet. The other instructor suggested that finding the right text books with some simulation, as well as needing more resources that were interactive as the reason for their rating. One (12.5%) instructor rated their course between Beginning and Advanced Proficiency as they felt that they had made improvement over the previous year. Four (50%) instructors rated their course as Advanced Proficiency. Two noted they had not rated themselves as Exemplary because there weren't "multiple" visual, textual, or kinesthetic activities in their course work. One noted that because they themselves are not a kinesthetic learner they struggle to incorporate enough hands on materials for their students; one instructor noted that they provide lots of different materials to their students. One (12.5%) instructor rated their course as Exemplary based on the fact that most of the assignments given have software simulations so that the students can experience realistic practice.

Individualization of Instruction	All students expected to complete same instructional pathway.	Students are minimally engaged with digital content to customize their instructional pathway.	Students engage with digital content to customize their instructional pathways that are competency-based.	Students engage with digital content and have multiple pathways that are competency-based and not tied to a fixed school calendar.
		Instructors: **25.0%** (2/8)	**Instructors:** **12.5%** (1/8)	**Instructors:** **12.5%** (1/8)
	Instructors: **0.0%** (0/8)	**Instructors:** **12.5%** (1/8)	**Instructors:** **37.5%** (3/8)	**Instructors: 0%** (0/8)

Cited Evidence:
Zero (0%) instructors rated their course as Novice. Two (25%) instructors rated their course between Novice and Beginning Proficiency noting that it is difficult to individualize or build a different class for every student. Both noted, however, that there are individualized assignments and final projects. One instructor stated "there are certain things that instructors know their students need to know in the working world and that all need to know. Let them be individuals as compared to individualized." One (12.5%) instructor rated their course as Beginning Proficiency as they do not use due dates which allows for a more individualized and self-paced course. One (12.5%) instructor rated their course between Beginning and Advanced Proficiency based on flexibility of due

dates, but that they are not in a place in the curriculum where there is an allowance for studying something different than what is developed. Three (37.5%) instructors rated their course as Advanced Proficiency as evidenced by the following: "because of the hybrid nature we have kids in the classroom and I can sit down with the students and address individual concerns, but I think there could be more availability online"; the students communicate to the instructor which reflects that the students are seeing what they are supposed to be doing; and, another instructor noted that they (the instructors) are still learning how their students learn best by teaching in several different ways, and then see how the grades follow which will be used to best structure the learning for each individual student. One (12.5%) instructor rated their course between Advanced and Exemplary noting that the assignments in the software allow the students different paths to complete the same project. Also, students are able to use what they know to achieve the goal of the assignment which means those with more industry experience may be able to get to the goal in fewer steps or shorter time.

Instructional Support Models	Direct student learning" through traditional teacher roles and staffing models.	Direct student learning through a blended model of traditional teacher roles and some reliance on technology-based tools and content.	Facilitate student learning: through a team approach with a significant reliance on technology-based tools and content.	Coordinate student learning: through the expanded use of technology-based tools and content, as well as the effective use of outside experts and/or community resources.
				Instructors: **12.5%** (1/8)
	Instructors: **12.5%** (1/8)	**Instructors:** **0.0%** (0/8)	**Instructors:** **75.0%** (6/8)	**Instructors:** **0.0%** (0/8)

Cited Evidence:
One instructor (12.5%) rated their course as Novice. This instructor sees themselves as a very traditional teacher that stands in the front of the classroom and shares information, the students listen to lecture, take notes, and read information. Zero (0%) instructors rated their course as Beginning Proficiency. Six (75%) instructors rated their course as Advanced Proficiency, evidenced by: use of group projects in the curriculum; technology implementation such as Panopto, Touch Screen, eLearning being integral to the courses; and no community resources and needing more technology in instructional delivery to rate themselves as Exemplary. One (12.5%) instructor rated their course between Advanced and Exemplary as they pushed their students to use Skype and FaceTime for team and group learning, as well as using group projects and discussion forums to encourage the students to interact more. Zero (0%) instructors rated their course as Exemplary.

Technology Access	Students have no access to technology or digital coursework at their school.	Access to school's technology and digital coursework ends with class period.	Access to school's technology and digital coursework exists during school hours.	Access to school's technology and digital coursework is 24/7.
		Instructors: **12.5%** (1/8)		

	Instructors: 0.0% (0/8)	Instructors: 0.0% (0/8)	Instructors: 0.0% (0/8)	Instructors: 87.5% (7/8)

Cited Evidence:
Zero instructors (0%) rated their course as Novice or as Beginning Proficiency. One (12.5%) instructor rated their course between Beginning and Advanced Proficiency, stating: access to school technology is fine, but students may struggle with technology access from their end (home) based on reactions from students. Seven instructors (87.5%) rated their course as Exemplary, stating: access to all course materials is available 24/7; emails are answered in a quick manner; and/or every student has the same computer with the necessary software installed so it is easy to provide technical support.

Technology Integration	Limited usage of new technology tools that enhance student learning.	Adequate usage of new technology tools that enhance student learning.	Regular usage of new technology tools that enhance student learning.	Innovative usage of new technology tools that interactively enhance student learning.
			Instructors: 12.5% (1/8)	Instructors: 12.5% (1/8)
	Instructors: 0.0% (0/8)	Instructors: 25.0% (2/8)	Instructors: 37.5% (3/8)	Instructors: 12.5% (1/8)

Cited Evidence:
Zero (0%) instructors rated their course as Novice. Two (25%) instructors rated their course as Beginning Proficiency, stating: there are more things they could add or utilize in their class; and the instructor sees his/herself as more traditional, but if they try the technology they will probably use the technology. One (12.5%) instructor rated their course between Beginning and Advanced Proficiency. Three (37.5%) instructors rated their course as Advanced Proficiency, stating: their rating would become Exemplary once the VVI assessment tools are created and incorporated; issues surrounding "the development of the VVI tool, which seems to be stuck in the beta phase, but would be very useful if it worked"; and, they are always looking for new software and new ways to do things. One (12.5%) instructor rated their course between Advanced and Exemplary as evidenced by the use of new tools such as Panopto, Educreations, and the Mind Mapping tool which took the course from more traditional to more technology integrated. One (12.5%) instructor rated their course Exemplary, stating: the software used is innovative and no doubt that it enhances student learning, also it would be far more difficult if not impossible without the software.

Teaching with Technology	There are limited multimedia elements and/or learning objects for accommodating different learning styles.	There are adequate multimedia elements and/or learning objects for accommodating different learning styles.	Multimedia elements and/or learning objects are used and are relevant to accommodate different learning styles.	Varieties of multimedia elements and/or learning objects are used and are relevant to accommodate different learning styles throughout the course.
	Instructors: 0.0% (0/8)	Instructors: 25.0% (2/8)	Instructors: 62.5% (5/8)	Instructors: 12.5% (1/8)

Cited Evidence:
Zero(0%) instructors rated their course as Novice. Two (25%) instructors rated their course as Beginning Proficiency as evidenced by: the use of a voice thread and PowerPoint which accommodates different learning styles. Also, the second instructor wonders if they need to reinvent the wheel or find something that is close and adapt to their course. However, this instructor feels it is important that their voice is used for tutorial videos. T"here is a balance in finding the right materials." Six (75%) instructors rated their course as Advanced Proficiency, stating: they allow those with different learning speeds to work at their own speed with flexible due dates; use of several different modes of technology for delivery; a lack of variety is keeping them from an Exemplary rating; and/or that there are a lot more elements out there that could be used. One (12.5%) instructor rated their course as Exemplary as they explained that a normal assignment would have video lecture, a PowerPoint, reading text, a lab experiment through simulation, and some sort of practice exercise.

Communication and Interaction	Opportunities for appropriate instructor-student interaction are infrequent and sporadic.	Opportunities are created to foster instructor-students interaction.	Regular opportunities are created to foster timely and frequent instructor-students interaction.	Regular opportunities are created to foster timely and frequent instructor-students interaction as well as student-student interaction.
			Instructors: 12.5% (1/8)	**Instructors: 12.5%** (1/8)
	Instructors: 0.0% (0/8)	**Instructors: 37.5%** (3/8)	**Instructors: 25.0%** (2/8)	**Instructors: 12.5%** (1/8)

Cited Evidence:
Zero (0%) instructors rated their course as Novice. Three (37.5%) instructors rated their course as Beginning Proficiency, stating: that there are no scheduled interactions, but the opportunities always exist if needed such as through email; not enough students to be able to set online office hours, but communication is available as needed through email or phone; and beyond the personal background that the student provides at the beginning of the class, the instructor feels they don't do as much as they could other than responding to emails in a very timely manner. One (12.5%) instructor rated their course between Beginning and Advanced Proficiency, stating: weekly emails are done, but they could do more to get to know the students as it is hard to foster a relationship at a distance. Two (25%) instructors rated their course as Advanced Proficiency, stating: email and calls are utilized with students; and whether the students take advantage of opportunities or not is the issue, if the student doesn't log on and participate it is hard to interact, however, the instructor is there for help when needed and will answer emails as soon as possible. One (12.5%) instructor rated their course between Advanced and Exemplary, stating: with a small number of students, it is difficult to get a feel for regular interactions. Also, the instructor has been using Skype so that students can see the instructor for immediate feedback. With open enrollment, rarely are students at the same place at the same time so it makes interaction more difficult. One (12.5%) instructor rated their course as Exemplary, stating: we do a good job here, because of the face-to-face opportunities in this course after 2 ½ years I get to know the students really well. It is important to form a relationship with students.

Student Feedback	Opportunities for students to receive feedback about their own	Opportunities for students to receive feedback about	Regular feedback about student performance is provided in a	Ongoing, varied and frequent feedback about student

	performance are infrequent and sporadic.	their own performance are provided.	timely manner throughout the course.	performance is provided in a timely manner throughout the course.
				Instructors: 12.5% (1/8)
	Instructors: 0.0% (0/8)	**Instructors: 12.5%** (1/8)	**Instructors: 25.0%** (2/8)	**Instructors: 50.0%** (4/8)

Cited Evidence:
Zero instructors (0%) rated their course as Novice. One (12.5%) instructor rated their course as Beginning Proficiency, stating: they provide quick responses to assignments and feedback for answers. Two (25%) instructors rated their course as Advanced Proficiency, stating: when the students take a test or do an assignment, they like to provide feedback right away or within a day or two as this feedback can help the student solidify an idea or better prepare for a test; if there were concerns the students would vocalize these concerns; and, assignments were posted as soon as they were graded. One (12.5%) instructor rated their course between Advanced Proficiency and Exemplary, stating: the students get immediate feedback from quizzes and tests through eLearning and there is a section to leave notes and feedback if they would like explanation to a test question. Four (50%) instructors rated their course as Exemplary, stating: they try to add regular feedback on assignments, use regular emails and Skype, also, some of the software used provides feedback to the students; with every textbook reading, the instructor links to an automated quiz so the student gets feedback right away and the instructor puts a lot of effort into giving feedback on every assignment; the use of the Snipping tool in Windows has been a great tool to capture an image of homework so markups and feedback can be provided directly on the homework assignment; and, we were brand new instructors last year, and working out how to provide rich feedback is a learning process in which the year of online teaching has helped.

TAACCCT Targeted Instructional Rubric – 2013/2014 Comparison

Blue = 2013 Instructor Self Rating

Red = 2014 Instructor Self Rating

** Please note:

Example: 2013 Beginning Proficiency → 2014 Advanced Proficiency = +1.0 growth

Example: 2013 Beginning Proficiency → 2014 between Beginning and Advanced = +0.5 growth

CATEGORY	NOVICE	BEGINNING PROFICIENCY	ADVANCED PROFICIENCY	EXEMPLARY
On-Line Curriculum	Much of the course is under construction, with a few key component identified.	Course is organized and navigable. Students can understand the key components and structure of the course.	Course is well-organized and easy to navigate. Students can clearly understand all components and structure of the course.	Course is well-organized and easy to navigate. Students can clearly understand all components and structure of the course. Additional materials related to successful strategies for completing online

				course are provided.
	Instructors: **12.5%** (1/8)	Instructors: **75.0%** (6/8)	Instructors: **12.5%** (1/8)	Instructors: **0.0%** (0/8)
		Instructors: **25.0%** (2/8)	Instructors: **25.0%** (2/8)	
	Instructors: **0.0%** (0/8)	Instructors: **0.0%** (0/8)	Instructors: **50.0%** (4/8)	Instructors: **0.0%** (0/8)

One (12.5%) instructor = +0 growth
Three (37.5%) instructors = +0.5 growth
Three (37.5%) instructors = +1.0 growth
One (12.5%) instructors = +2.5 growth

Average Growth = + 0.875

Instructional Resources	Course minimally uses digital content, resources and/or tools to supplement instruction.	Course uses adequate digital content, resources, and tools to supplement instruction.	Digital content, resources and tools expand and enhance the curriculum and content.	Use of digital resources and tools are integral to content, curriculum and instruction.
	Instructors: **0.0%** (0/8)	Instructors: **50.0%** (4/8)	Instructors: **25.0%** (2/8)	Instructors: **25.0%** (2/8)
		Instructors: **12.5%** (1/8)	Instructors: **12.5%** (1/8)	
	Instructors: **0.0%** (0/8)	Instructors: **37.5%** (3/8)	Instructors: **0.0%** (0/8)	Instructors: **37.5%** (3/8)

One (12.5%) instructor = -0.5 growth
Four (50.0%) instructors = +0 growth
One (12.5%) instructor = +0.5 growth
One (12.5%) instructor = +1.0 growth
One (12.5%) instructor = +2.0 growth

Average Growth = + 0.375

Instructional Design	Course provides limited visual, textual, kinesthetic, and/or auditory activities to enhance student learning and accessibility.	Course provides adequate visual, textual, kinesthetic, and/or auditory activities to enhance student learning and accessibility.	Course provides ample visual, textual, kinesthetic, and/or auditory activities to enhance student learning and accessibility.	Course provides multiple visual, textual, kinesthetic, and/or auditory activities to enhance student learning and accessibility.
	Instructors: **12.5%** (1/8)	Instructors: **37.5%** (3/8)	Instructors: **50.0%** (4/8)	Instructors: **0.0%** (0/8)
		Instructors: **12.5%** (1/8)		

	Instructors: 0.0% (0/8)	Instructors: 25.0% (2/8)	Instructors: 50.0% (4/8)	Instructors: 12.5% (1/8)
One (12.5%) instructor = -1.0 growth One (12.5%) instructor = -0.5 growth Two (25%) instructors = +0 growth Three (37.5%) instructors = +1.0 growth One (12.5%) instructor = +1.5 growth		**Average Growth = + 0.375**		

Individualization of Instruction	All students expected to complete same instructional pathway.	Students are minimally engaged with digital content to customize their instructional pathway.	Students engage with digital content to customize their instructional pathways that are competency-based.	Students engage with digital content and have multiple pathways that are competency-based and not tied to a fixed school calendar.
	Instructors: 62.5% (5/8)	**Instructors: 25.0% (2/8)**	**Instructors: 12.5% (1/8)**	**Instructors: 0.0% (0/8)**
	Instructors: 25.0% (2/8)	**Instructors: 12.5% (1/8)**	**Instructors: 12.5% (1/8)**	
	Instructors: 0.0% (0/8)	**Instructors: 12.5% (1/8)**	**Instructors: 37.5% (3/8)**	**Instructors: 0.0% (0/8)**

Two (25%) instructors = +0.75 growth Four (50%) instructors = +1.0 growth One (12.5%) instructor = +1.5 growth One (12.5%) instructor = +2.0 growth		**Average Growth = + 1.125**		

Instructional Support Models	Direct student learning" through traditional teacher roles and staffing models.	Direct student learning through a blended model of traditional teacher roles and some reliance on technology-based tools and content.	Facilitate student learning: through a team approach with a significant reliance on technology-based tools and content.	Coordinate student learning: through the expanded use of technology-based tools and content, as well as the effective use of outside experts and/or community resources.
	Instructors: 12.5% (1/8)	**Instructors: 62.5% (5/8)**	**Instructors: 25.0% (2/8)**	**Instructors: 0.0% (0/8)**
			Instructors: 12.5% (1/8)	
	Instructors:	**Instructors:**	**Instructors:**	**Instructors: 0.0% (0/8)**

	12.5% (1/8)	**0.0%** (0/8)	**75.0%** (6/8)	
Three (37.5%) instructors = +0 growth **Four (50%) instructors = +1.0 growth** **One (12.5%) instructors = +2.0 growth**		**Average Growth = + 0.75**		

Technology Access	Students have no access to technology or digital coursework at their school	Access to school's technology and digital coursework ends with class period.	Access to school's technology and digital coursework exists during school hours.	Access to school's technology and digital coursework is 24/7.
	Instructors: 0.0% (0/8)	**Instructors: 0.0%** (0/8)	**Instructors: 12.5%** (1/8)	**Instructors: 87.5%** (7/8)
			Instructors: 12.5% (1/8)	
	Instructors: 0.0% (0/8)	**Instructors: 0.0%** (0/8)	**Instructors: 0.0%** (0/8)	**Instructors: 87.5%** (7/8)

One (12.5%) instructor = -1.0 growth **Five (62.5%) instructors = +0 growth** **One (12.5%) instructor = +0.5 growth** **One (12.5%) instructor = +1.5 growth**		**Average Growth = + 0.125**		

Technology Integration	Limited usage of new technology tools that enhance student learning.	Adequate usage of new technology tools that enhance student learning.	Regular usage of new technology tools that enhance student learning.	Innovative usage of new technology tools that interactively enhance student learning.
	Instructors: 12.5% (1/8)	**Instructors: 50.0%** (4/8)	**Instructors: 37.5%** (3/8)	**Instructors: 0.0%** (0/8)
		Instructors: 12.5% (1/8)	**Instructors: 12.5%** (1/8)	
	Instructors: 0.0% (0/8)	**Instructors: 25.0%** (2/8)	**Instructors: 37.5%** (3/8)	**Instructors: 12.5%** (1/8)

One (12.5%) instructor = -1.0 growth **Two (25%) instructors = +0 growth** **One (12.5%) instructor = +0.5 growth** **Three (37.5%) instructors = +1.0 growth** **One (12.5%) instructor = +2.0 growth**		**Average Growth = + 0.56**		

Teaching with Technology	There are limited multimedia elements and/or learning objects	There are adequate multimedia elements and/or	Multimedia elements and/or learning objects are used and are	Varieties of multimedia elements and/or learning objects are used and are

	for accommodating different learning styles.	learning objects for accommodating different learning styles.	relevant to accommodate different learning styles.	relevant to accommodate different learning styles throughout the course.
	Instructors: 12.5% (1/8) **Instructors: 0.0%** (0/8)	**Instructors: 25.0%** (2/8) **Instructors: 25.0%** (2/8)	**Instructors: 62.5%** (5/8) **Instructors: 62.5%** (5/8)	**Instructors: 0.0%** (0/8) **Instructors: 12.5%** (1/8)

One (12.5%) instructor = -1.0 growth
Three (37.5%) instructors = +0 growth
Four (50%) instructors = +1.0 growth

Average Growth = + 0.375

Communication and Interaction	Opportunities for appropriate instructor-student interaction are infrequent and sporadic.	Opportunities are created to foster instructor-students interaction.	Regular opportunities are created to foster timely and frequent instructor-students interaction.	Regular opportunities are created to foster timely and frequent instructor-students interaction as well as student-student interaction.
	Instructors: 12.5% (1/8)	**Instructors: 62.5%** (5/8) **Instructors: 12.5%** (1/8)	**Instructors: 12.5%** (1/8) **Instructors: 12.5%** (1/8)	**Instructors: 12.5%** (1/8)
	Instructors: 0.0% (0/8)	**Instructors: 37.5%** (3/8)	**Instructors: 25.0%** (2/8)	**Instructors: 12.5%** (1/8)

One (12.5%) instructor = -1.0 growth
Three (37.5%) instructors = +0 growth
One (12.5%) instructor = +0.5 growth
One (12.5%) instructor = +1.0 growth
One (12.5%) instructor = +1.5 growth
One (12.5%) instructor = +2.0 growth

Average Growth = + 0.50

Student Feedback	Opportunities for students to receive feedback about their own performance are infrequent and sporadic.	Opportunities for students to receive feedback about their own performance are provided.	Regular feedback about student performance is provided in a timely manner throughout the course.	Ongoing, varied and frequent feedback about student performance is provided in a timely manner throughout the course.
	Instructors: 0.0% (0/8)	**Instructors: 37.5%** (3/8)	**Instructors: 62.5%** (5/8)	**Instructors: 0.0%** (0/8)
			Instructors: 12.5% (1/8)	
	Instructors: 0.0% (0/8)	**Instructors: 12.5%** (1/8)	**Instructors: 25.0%** (2/8)	**Instructors: 50.0%** (4/8)

One (12.5%) instructor = -1.0 growth
One (12.5%) instructor = +0.5 growth
Five (62.5%) instructors = +1.0 growth
One (12.5%) instructor = +2.0 growth

Average Growth = + 0.8125

Summary of Instructor Interviews:

The following are a summary of the instructor statements from questions directed toward the progress of grant deliverables.

When asked what strategies are used to identify students that are struggling with academic success, responses included: missing assignments; poor grades on assignments; communication between instructor and student where the student voices concerns their progress; and, extended periods of time without a login by the student.

When asked what interventions they have implemented to address students that are struggling with academic success, instructor responses included: additional emails or phone calls to offer individualized help; the offering of face-to-face opportunities; specific and ample feedback; implementing more class structure/deadlines; making sure the students understand the workload involved in the class; and, helping the students get the proper programs installed on their computer.

When asked if the curriculum for their course was completed, and if not what is left to do, the instructor responses indicated that curriculum development is an ongoing process with improvements constantly being implemented. For the purposed of this grant, the curricula are primarily complete and ready to be posted on the OER. However, posting tends to be a

challenge because there is a lot of the curriculum that is based on copyrighted material that cannot be posted.

When asked if the content and structure of the course met industry needs and how, instructor responses included: have worked in the industry for many years and is familiar with what is needed, also works with an advisory board for input; constantly talking to people, specialists, in the field and their in demand students have come back to tell the instructor that the material learned is right on track; approval of the advisory board; the instructor spent 20 years in the industry so is familiar with industry practices and has past experience valuable to teaching the material; an industry leader in the community is a big supporter of the program, helped develop the content, and also helps with student recruitment; and ongoing conversation with the advisory board and asking employers for feedback regarded needed skills.

When asked what has been learned that they would implement in coming years to improve the quality of the course, instructor responses included: looking globally for what skills are needed in the field, trying to find research, documentation, or programs that do it differently and textbooks and/or methods that do the transition from face-to-face to hybrid better; last year we were just recording all of the courses, but it is a juggling act to deliver material to on-campus group but also trying not to bore the online group with announcement that are not pertinent to them, so have learned to start recording after announcements; can be tricky being the presenter and director of the recording at the same time; worksheets have been added to the server software to allow for immediate feedback along with the addition of practical challenges that can be practiced online and has had great feedback from students regarding these challenges; would add due dates and make the class more structured, but struggles with this as many students have a large amount going on personally and it seems tough to impose a strict due date; there needs to be deadlines for students to keep them on track for their learning goals, and all classes should have the same type of format regardless of the content as evidenced by student feedback and having been an online student; more time is needed in order to prepare for the online portion of classes and has found some of the older students struggle with online learning forum; and, uses more technology that at the start and has started to record lectures.

When asked what new technologies are being used to strengthen online and technology-enabled learning, instructor responses included: have redone all voice presentations using Voice Thread and matched these with the corresponding PowerPoint; the earmarking feature within Panopto to mark certain notes with the word "test" for example and then the students can go back later and search for those specific voice notes; and, everything is on eLearning and organized by section.

Instructors also noted that the current technologies would be the same as last year and include: the use of Camtasia (screen recording and video editing software); the use of Popplet (collaboration and idea sharing tool); eLearning (use of [electronic media](#) and [information and communication technologies](#)); Educreations (interactive tutorial); YouTube (video resources); Blackboard (Learning Management System); Jenzabar (Learning Management System); upgrade of infrastructure in both software and hardware formats; Smarthinking (tutorial services); Voicethread (cloud-based conversation tool); Simutech (troubleshooting software); Multisim (electronics assessment); partnership with Vision Video Interactive (creation of virtual assignments); Podcasts; Panopto (video capture and management platform); and/or the creation of networkable programmable logic controls.

Conclusion:

All instructors were positive about their learning and growth as online instructors with significant growth in their delivery and development of materials. Challenges exist around how to present the more "hands on" material in an online environment, but all instructors have met the needs of their students through entirely online learning and/or hybrid face-to-face/online learning opportunities. There was agreement that posting the curriculum and associated materials to an OER site presented a challenge as a fair portion of the material used is copyrighted. All instructors felt that tools/software/infrastructure developed through the grant were a benefit to both the classroom and online courses in other areas of study. At the time of the spring instructor interviews, the proposed extension had not been approved.

Appendix

Protocol for TAACCCT Instructor Interviews

Instructor Name:

Institute:

Introductions:

Connection to TAACCCT Priorities, Strategies and Deliverables

The TAACCCT grant's success is measured by the successful implementation of three priorities. Now we are going to focus on how the delivery of your course helps successfully implement those strategies.

Priority 2: Improve retention and achievement rates and reduce time to completion.
- Strategy 1: Ensure at-risk students' academic success and on-time graduation

1. What strategies do you use to identify students that are struggling with academic success?

2. What interventions have you implemented to address students struggling with academic success?

Priority 3: Build Programs That Meet Industry Needs, Including Developing Career Pathways.
- Strategy 2: Develop and deliver online Green Energy Production industry focused AAS degree, diploma (certificate) Programs……

3. Is the curriculum for your course completed? If not, what is left to do?

4. How does the content and structure of this course meet industry needs and how do you know?

5. What have you learned that you might implement in coming years to improve the quality of this course? On what data did you base your decision to make changes?

6. Is there anything else you would like to share about the development and/or delivery of the online course?

Priority 4: Strengthen Online and Technology-Enabled Learning
- Enhance virtual and simulation technologies enabling SD to change (improve) the way we teach technical skills.

7. The deliverable for this priority is that each technical institute will implement a minimum of three new online technologies by the start of year three. What new technologies are you using to strengthen online and technology-enable learning?