Bridge Learning Communities
November 19, 2015

Michael Lesiecki - Good day everyone I'm your host Michael Lesiecki speaking to you from the Maricopa Community Colleges. It's my pleasure to introduce to you The Bridge Learning Communities webinar today is November 19th its 3 p.m. Eastern time. This webinar will be recorded and if you are a registered attendee you'll automatically get a link to the recording on the slides of the webinar as well.

Webinar Details

Michael Lesiecki - I'm going to tell you a few things about the webinar system and the center's collaborative for technical assistance some details you'll be in listen-only mode using your computer or phone. Please ask your questions via the question window you'll be typing them in. We'll have several breaks and as I mentioned this webinar is being recorded.

Brought To You By

Michael Lesiecki - Today's webinar is brought to you by the Centers Collaborative for Technical Assistance and there's additional support from the Advanced Technological Education Collaborative Impact Project.

The CCTA Is Led By

Michael Lesiecki - The CCTA that's its name is led by five centers you can see their logos; The CTC Center at Collin College; SCATE in Florence South Carolina; FLATE in Hillsborough Florida; Bio-Link in San Francisco and my own center MATEC Networks here in Phoenix, Arizona.

CCTA Purpose

Michael Lesiecki - Why are we doing this? What's our purpose? Well originally there was a request from the Department of Labor that said hey you ATE folks have been around for a long time. What if you share some of your learnings and best practices with others like the Department of Labor TAA grantees? Things like success coaching and maybe do some in-person convening, and do some webinars. So that seemed like a good idea we got the funding for it.

CCTA Activities are Relevant for

Michael Lesiecki - Our activities are relevant not only for DOL grants and NSF grants but any type of work force granted program, of any type.

Deliverables

Michael Lesiecki - What are deliverables? Well today you're experiencing one of those deliverables it's a topical webinar or teleconferences. Now we have other online media including videos that I mentioned and transcripts that are recorded.

Deliverables Continued

Michael Lesiecki - In addition to those deliverables there are regional specific conferences and there'll be opportunities to identify and document best practices and doing some local regional convenings as well all under the CTC- CCTA umbrella.

About the Presenters

Michael Lesiecki - So that was fun. Let's go ahead and get to the important part today, the start of our webinar. Let me tell you a little bit about our presenters. I'll first introduce Elaine Johnson and then she'll introduce her co-panelist for today. Elaine welcome, you're the PI and Executive Director of Bio-Link headquartered at the City College of San Francisco. Elaine I know, Bio-Link's been around for a while. Why don't you say hello to everyone and then go ahead with your further introductions.

Elaine Johnson - Hello everyone, I see on the attendee list, I know many of you and some of you are new. We've been a national center, ATE National Center since 1998, so we've had some experience and we've worked with a lot of different projects and we're also a part of one of the TAACCCT grants for the Department of Labor so we are really excited about continuing this discussion and sharing with you. We have some presenters today that are very experienced in Bridge to Bioscience and Bridge to other programs as well. One of them is Rob Yung, who is an instructor, actually an English major and has worked with a bridge to bioscience program at City College of San Francisco. Hi Rob!

Rob Yung - Hi!

Elaine Johnson - And then Katie Krolikowski is from Contra Costa College in San Pablo California she was a part of our synergy project when we were looking at scaling up the bridge that we had developed in San Francisco and she has taken this a step forward and adapted-adopted and we're really excited Katie to have you on board today, and to talk about your program. Hi!

Katie Krolikowski - Hi everyone, I'm glad to be here.

Elaine Johnson - Great and Jeff Rapp is from Athens Technical College in Athens, Georgia. He's been a part of our Bio Link community for a while and he was also part of the synergy project and took on adapting the bridge program to his school in Athens. Hi Jeff!

Jeff Rapp- Hello Elaine!

Real Outcomes of a Bridge Program

Elaine Johnson - So what we would like to do is to begin this webinar hearing from some of the students at some of the experiences that they could tell you in their own words based on what they were learning in the bridge program. This is one that comes from City College of San Francisco and the Bridge to Biosciences.

Michael Lesiecki - Thank you Elaine. Participants I'm going to launch this video now. There may be a case depending on your colleges or your institution's firewall where you may not see it. That's possible but you can always review the video from this link later on. Panelists remember to be silent during the video because if we talk, our voices will come over the video. So here we go everyone, I'm now launching the video.

The video plays https://www.youtube.com/watch?v=1Ka_aiHKIqg

Michael Lesiecki - So we're back live Elaine. That's a very impressive comments from those people in the video.

The Value of Learning Communities/Communities of Practice

Elaine Johnson - Well we thought that would be a good way to kick off our webinar today and those students were a part of a learning community with different classes but instructors working together- and we're going to hear about that. But we also then built upon that and created learning communities that share this idea across the whole country and this is where we think that we have some value to talk to other colleges that are interested in sharing their common concerns deepening their knowledge and expertise about interacting on a regular basis and that allows them to become a part of a community of practice. This depends on voluntary engagement of people and their own enthusiasm their excitement; and then what happens is the emergence of internal leadership. So we are really pushing this whole idea of working together and that's why we think that this idea of the National Science Foundation, ATE community and the Department of Labor TAACCCT community have something that can really be shared and we can build upon what we've already learned. As we move on to the next slide.

Why Start a Bridge Program

Elaine Johnson - We want to also talk a little bit about starting a bridge program and this is something of course of interest to people that are attending this webinar; many of whom either have- are beginning to start a bridge program or considering it- trying to find funding for it. What are the challenges? So we know we have, we absolutely all understand that we have students that are entering technical programs and they have many challenges. Particularly in becoming successful in some of the gateway classes like Chemistry and Math. Also as a community of practice, we can learn from each other and we want to share those best practices and promote student success and also the funding agencies are interested in evidence of success.

Today's Agenda

Elaine Johnson - So what we are going to do today is to hear from several people who have experience working with bridge programs and each presenter will have 10 minutes to describe their own experience with bridge and learning communities and then we're going to open this up for discussion questions from the audience. So what I am going to do now is to turn this over to Rob Yung.

College Completion- "The Big Goal"

Rob Yung - Thank you Elaine. So my name is Rob Yung and I teach at City College at San Francisco and for the past maybe 11 years I've been teaching the Bridge to Biosciences and my background is Basic skills. I'm an ESL instructor and I think I come with a unique perspective of how basic skills can be integrated into a bridge program and I can talk a lot about the necessity of that. So I want to start- I will eventually talk about three different programs. Bridge programs that are highly successful to talk about some models because I think you guys out there might be considering what- I'm sorry can you go back to my previous slide that switched automatically. ok but I want to talk briefly before we start talking about models about the big goal of completion so this is a big picture idea here and- you guys might know some of this but degree attainment to other countries is outpacing the US- which is decreasing our economic growth and competitiveness. Our country sets some really high goals. We have 3 quotes on this slide here; one from Obama from the White House in general, one from the gates foundation. All of the quotes are around increasing the amount of people that graduate and so I'm just bringing this up because there is a significant amount of emphasis on community colleges in trying to get more graduates so America can stay competitive but as we push more people to graduate we often push people into situations where they don't have the necessary skills, and they have a major skills gap to be able to do the work that we need them to do. Can you forward the slides?

The Problem

Rob Yung - Thank you. So as I mentioned the problem is a skills gap as you guys all have experience with. Incoming students to community college often lack the academic and basic skills to handle college-level coursework so the traditional approach is remediation. We say ok, you want to take engineering classes but your Math and English is not good enough. Go take some Math and English classes. Take the developmental sequence of math and English and come back to us when you're at this level. Well- in California the blue statistic here on the slide eighty-four percent of city -X- community college students are placed into remedial math or developmental math and 72% are placed in developmental or remedial English; and so that's a huge portion I think. I don't know if that's true in your state, but this is true for many states. And the question I have to ask, "Does your current approach to remediation address the skills gap well?" Next slide please.

Is Traditional Remediation a Success

Rob Yung - And in California, at least-Like I said the blue statistic here 84% go into remedial math but only ten percent successfully make it to college level Math and the same is true for English or similar to statistics;72% testing to remedial English and only 25% make it to transfer level English. So in many ways the developmental sequences as you know the basic skill sequence is hardly a success for a variety of reasons and my big issue there, thank you for Mike changing the slide,

Other Challenges

Rob Yung - Is that we -these people are lost to programs like ours that if they need higher to basic skills and so other challenges that students have are, number one that academic concepts are abstract in the basic skill sequence. Number two they lack of basic skills foundation and number three the rationale of some assignments is un-note to students meaning "How is writing an essay going to help me in this engineering program or this science program? So one way to resolve all this is to start a bridge program. Next slide please.

How Do Bridge Programs Address These Barriers?

Rob Yung - So I want to talk about how bridge programs address these barriers in number one in bridge programs academic support is often infused, and what we mean by that is instructional focus is not just what to do but how to do it so that just input and output but process. Input would be of course readings or lectures and output to be test proving that they learn but we focus significantly on the process so what does it take to actually do the work what are the steps. How do you do this? Number two the other way we address these barriers is that it's not basic skills remediation and then classes in your major it's often basic skills remediation with content from your major the same exact time and Ill discuss it in more detail at a later time. That brings up the term that gets used for number two is contextualization right? Are we teaching Math that's actually contextualized to the target major of the student? Are we teaching language skills that a scientist would use or engineer would use? Or are we doing something that might slow a student down which is teaching them perhaps, how to write an essay that has limited application or transfer ability into the target major or job of the student. Number three cohort model often addresses a lot of issues we're talking but as you saw from the video from my program those students talked about losing shyness they talked about going through everything together and having things be really connected and feeling comfortable talking about issues or problems and raising their hands and saying "I don't know what's going on." So a Cohort model often breaks down those barriers significantly. A dual enrollment is a common recent thing that a lot of schools are working on where high school students in their junior and senior years take classes at the Community College and are enrolled in both systems and get credit in those systems or what they what they achieved. So we have actually taken classes that are college-level classes, we're not changing the level of

rigor and lowering its high school standard; but we're attempting to help them make transitions better to community college in bridge programs help that skills gap a lot because the students are figuring out okay what is the level of rigor needed in college and they're being exposed to an earlier age and there's been a lot of significate data on this to prove that they're doing well by doing this. Another is professional development so not for teachers but for students mostly and so a lot of bridge programs focus on career awareness and exploration which helps keep/retain students like that. They focus on job announcements, resumes, cover letters, construction and also in other components not academic support so getting students to register for financial aid assessing disabilities in knowing that having them know about resources available for them at their school. Next slide please.

Other Common Bridge Program Aspects

Rob Yung - Some other common bridge programs aspects, number 1-Stackable certificates they often come in at the Bridge level and above that it may be one year certificate that they could stack on top it can understand how those tax certificates are pathways transferred to jobs; and they can go in and out of the system without committing to two years or four years doing easily achievable one-year certificates that sort of stack-up. Number 2- Assessments are project-based. I'm sure you guys heard of that before. Number 3 Industry certification articulates with academic degrees such as a CNA program might have a bridge program that helps students pass an Industry certification. Next slide please.

What Bridge Models Exist?

Rob Yung - So let's talk about some models. I'm going to wrap up by talking about three models. One is I-BEST. I think a lot of people have heard about that before-it's Washington State. They've had a lot of gains that are really important. The other is LaGuardia which is in New York. And the last is Bridge to Biotech which is called Bridge to Biosciences now.

Integrated-Basic Education and Skills Training (I-Best)

Rob Yung - So the first is I-Best and I-Best stands for Integrated Basic Education Skills Training and the key word is integrated. So we're looking at-- I'm going to go away from the numbers here for a second just talk in general about this. You have a basic skills instructor so English or Math or ESL in the classroom at the same time. As a content instructor teaching together, a team teaching- so that's number two. There's number three -equal overlapping instruction time and they qualify for 1.75 reimbursement so it's kind of unique some administrators have a hard time wrapping their head around how they would do that and whether it'll be helpful; because a couple things in three and four that can help Administrators think of why this may be helpful. In this situation content and basic skills must be presented for at least 50% of classroom time. So It's fusing both of these together, so students know ok, If I've been given this lecture how will the English teacher teach me how to study for the test or what do I or How do I compose notes and other things that maybe the content and structure going to have time for or am I going to have knowledge of how to teach. And then five we should address some criticism. The initial criticism of, I-BEST was, It cost a lot. You have two teachers in the same classroom so it's costing more. But actually there's a benefit, and the benefit is from decreased time spent by students in both basic skills and content classes. So they can complete programs in a quicker rate and they don't have to take two sequences their content sequence and their basic skill sequence at the same time. And then I just want to address the first point on this page briefly it's about the tipping point researchers which happened a while ago; And I'm sure you're familiar but there's a lot of bridge programs that are a semester, maybe 4 months long, something like that; and tipping point studied all kinds of programs and determined what the effective length of a program is and they define effective by saying is there are significant wage gains for students in these bridge programs after the program; and they found the bridge programs that are just a semester-long didn't have significant gains that justified the creation of

them. And so if you're considering creating a program often times a year-long bridge program or a year - long training program, a year-long certificate made a much more of a significant impact on a student and enable them to higher wages afterwards than just the short six week or one semester program. Next slide please.

La Guardia

Rob Yung - So let's talk about LaGuardia. LaGuardia has GED bridges and their bridges to business careers, health careers, and professional careers; and the major aspects of their program are career related coursework, career pathways counseling, college readiness activities and transition support services. Meaning transitioning into college not necessary out into jobs. They may have that, but we're talking about transitioning in. next slide please

La Guardia Data

Rob Yung - LaGuardia has some great data. In their data they found that the foundation is contextualized curriculum. Meaning Math and English contextualize to GED bridge for health careers or things like that. Completion rates are significantly higher. They went from 47 percent to 68 percent completion. Pass rates for the GED test were doubled and higher college enrollment; so these students are bridging into college but they may not actually get there, they may just take the GED and find a job or do something else. But in this case the students who took the GED bridge, actually after GED, went to college three times higher, so that was really fantastic for them. Next slide please.

Bridge to Biotech (B2B) Program at City College of San Francisco

Rob Yung - And I wrapped up by talking about Bridge to Biotech Program at City College. So this is kind of a big complicated slide it takes a while to digest but if you just look into the colored portion of it, we have a two semester program and there's some yellow boxes in the colored portion and those are the courses that are contextualized that form the Bridge to Biotech or Bridge to Bioscience. It just list what we take first semester and 2nd semester. And I want you to notice that if you look to the right of colored box there's another box at the top right that says General Entryway for Biotechnology students with some scientific background. And so they already have the skills and what we're doing is saying OK normally students with limited skills do poorly in the general biology and chemistry courses, so we're going to create a bridge program that addresses their skills gap and that bridges them straight into general Bio and Chem so they can do upper level certificates and be on par or have similar abilities to the students who have some background or some previous college experience. So that's the structure of the program. Next slide please.

CCSF Bridge to Biotech Data

Rob Yung - So just to talk and wrap up with some data on the program retention is 82% persistence is -- 83 percent of students who graduate persist beyond Bridge; they take twice as many units; they stay in school three times longer. I'm not saying it takes them three times as long; they stay in school three times longer. Meaning they take classes, get higher degrees and get more certificates and things like that. #3 Completion- bridge graduates complete twice as many biotech certificates compared to our matched groups. So that's the game we're really looking for. We need to know have we bridged that skills gap effectively and if so they're completing more certificates than we feel like we're successful in doing that. #4 we wanted to know if they have success in Gateway courses. So in our school it's the chemistry and biology that they had challenges with so of our graduates seventy-seven percent pass gateway courses while 50% of non-student, non-bridge students fail those courses. And finally, Hiring-- Bridge students are forty percent of them are hired by mentors after internships. So to wrap up there's various models and they have significantly different aspects to them and what might work best for you

might be something different and depending on what the situations are at your school are. And I'll turn it over to Katie- I think is next- and she's going to present her program.

Questions?

Michael Lesiecki - We're going to take a pause Rob for some questions before we go to Katie. I've gotten several questions; the data- I'm going to go back to your data slide, because the questions are about that. To make sure we're on the same page, what do you mean by retention? How do you define retention at City College?

Rob Yung - Yes. Thank You. The number of students that remain in a class from census to the very end of the class.

Michael Lesiecki - Ok, and persistence?

Rob Yung - The number of students that re-enroll next semester or percentage.

Michael Lesiecki - Ok, our college here does retention slightly different and persistence identical but I think as long as we agree on the definition that you're using that's important. One of our attendees commented that your success number for it is just an amazing statistics. Seventy-seven payouts while your comparison group shows something considerably different. That's very impressive.

Rob Yung - Thank You.

Michael Lesiecki - That's over what, 7 years now? Rob is that correct?

Rob Yung - The program has been existing for eleven. This data was on a five years' worth of student data.

Michael Lesiecki - Interesting. I'm going to go back to the question slide for a moment. Elaine I have one for you. I'll read it. It says "I have a manufacturing program, do these best practices translate?" What do you think Elaine?

Elaine Johnson- Well I think that's why we're here. Is that we're really interested in the transferability of the whole- the idea of students doing contextualized learning and instructors working together to support those students from different disciplines. My guess is yes. But I think that we have to try that in some of the manufacturing programs or some of the other programs and see if indeed this is going to be a good model for a lot of different students. But our own experience is that one of the problems with students is they seem to be able to do just fine in Math and English but they don't connect it with what they're doing in the career pathway and the workforce applications.

Michael Lesiecki - Umm-Interesting. There are several questions that I'm sure all our panelists can imagine on Funding, right? How do you find this thing? But we're going to come back to that, Elaine and Rob as we get towards the end. I'd like to turn back now toward our next presenter Katie. Katie we remind you to unmute microphone. I'm going to take us forward one slide. There you go Katie. You're on the floor.

Agenda

Katherine Krolikowski - Good, Thank you Mike. I'm Kate Krolikowski and I thought I'd tell you a little bit about my perspective to start out my presentation; to help frame a different idea compared to Rob's. I run the Biotechnology program at Contra Costa College in California here and I also teach in the regular academic program of Biology. I got interested in this because I am really fascinated by the big picture of our system in terms- both in terms of workforce training and also the overall system of education; high school, all the way through the university system. I've also been interested through my whole life in connecting multiple disciplines across a college campus. At the same time though, I am just continually stimulated by direct attraction in students and the video that Elaine showed really just showcases the source of that passion in my job. I know you can probably all relate. And I'm really interested to find out how that direct classroom experience relates to that larger structure of the education and workforce development. Pictured here in the foreground is Ray. He's just a success story I wanted to highlight to get us started. He started in the bridge program as part of a TAACCCT supported Cohort. Continued with the support of another grant from the USDA that we have. And he just completed a summer internship with a UC Berkley professor. He's planning to transfer as a biology major. And his mentor from the summer wants to continue working with our program. So he's one true success story for both himself and for our program. So I just wanted to start off with that good news. And my next slide

Why Build the Bridge to Biotech Course and Cohort Program at CCC?

Katherine Krolikowski - I wanted to start with some important considerations I had as we decided to create this program. So why put a bridge program at Contra Costa College? And many aspects of community played a role. First off, City College's program was a great model. I learned a bit through the collegiality of Biotech faculty in the Bay Area and also through Elaine's fantastic work with Bio-link. She talks about a community of colleagues and it's been absolutely real in this instance. I also have strong interactions with our feeder high schools; and they particularly have this academy model, which have the goals of making students college, and career ready and the mechanisms is through contextualize learning. The course that I developed I'll tell you about in a minute. Was a direct response from a particular Academy lead teacher he wanted an introduction to Biotech class, that was taught in a level appropriate for students transitioning from high school to community college. And he also hoped for dual enrollment as described by Rob earlier. Now of course as a CTE program on job readiness is an important consideration. Since this is a bridge course, it does provide an admittedly, modest credential, but students do excellent with a fair number of identifiable skills; and probably the most important point to me is that we needed an entry point at our college to increase access to this really high skill career and really challenging educational pathway of Biotech. Especially for underserved students. And I think the kind of program that we've developed, and you'll hear about also from Jeff. I think it really is the key to success for our future STEM economy. A few other considerations I wanted to make sure that there was access to multiple pathways. So besides Biotech, Science transfer majors would be served and the Allied Health students would be served. And why was this possible? It's because we had some really clear ideas developed, by thinking about City College's program, and I repeatedly shared that with my CTE dean when grant proposals came up. And on the next slide.

Bridge to Biotechnology Cohort Program Structure at CCC

Katherine Krolikowski - I've got part of the structure- and then the slide after that I'll have the rest of the structure. Ok so briefly our certificate has three Non- biotechnology classes. You see there Math, English, and Counseling. And then there's the bridge course in which I'll talk about in a second. And these all combine to make a four course certificate; so attainable, achievable, something that students can get a success on and move forward. So faculty goals are actually really important in making this a success and that drove the structure of the certificate. First our team valued empowerment for students

and encourage them to take ownership of their own education and transformation towards career readiness. And as Rob talked about, this does come from an understanding between the relationships between the required courses in the certificate and cohort structure was definitely our solution to that. Second we saw very little value in creating brand new courses in English, Math and Counseling; so we used existing courses in our certificate. However, we did need a brand new transitional or bridge course in Biotech, and we wanted to make sure it was sustainable. So it was developed to work with or without a Cohort and it was connected to- It is connected to a number of different curricular pathways-And I'll talk about that. Before I transition, I want to talk briefly about these non-biotech courses; they can be contextualized to Biotech but they don't have to be. But the important thing is vice versa, Biotech can be contextualized to these. For an example, discussion with the Math faculty helped me learn how to teach things like ratios and proportions in the same way that the Math faculty do; and help students understand how to translate knowledge from one class to another between Math and Biotech. From discussions with English faculty I learned specific terms used in a writing and composition class such as a process paragraph. And that was incorporated directly into the development of the Biotech writing assignments. This turned out to be more professional development than curricular development- I think. And that's professional development for us faculty participating in the program. One key point I want to emphasize that this cross-disciplinary interaction did lead to a very structured content class in Biotechnology- which I think is really good for students knowing what is expected of them. And also will help with sustainability as other instructors take on teaching the class. So let's move to the next slide,

More About The Bridge

Katherine Krolikowski - And see the actual industry-related content course. It's called Bio-slide 172L and it was developed, for sure, to meet employer's needs; but it was also developed to ensure student's access. And so the big question is how do we serve those students, who come to us saying, "You know I've always been interested in science but I really never thought I could be part of that community." And-Can't tell you everything in the short amount of time but I did want to point out that we provide exposure to the type of thinking and work experience. Or type of work that's expected in this industry, Biotech which is actually developed and run by PhD scientists. So that kind of different thinking was a big goal in this class and also just initial training in the specific process of science and some standard techniques that improve employability. There's more to it- that's all I can say right now. To make this class sustainable, that was really important consideration; we did ensure- and this is down at the bottom of the slide. That the class was portable to different colleges in our system by aligning with California of course numbering system and also that it met GED requirements for students who need to transfer. And most importantly this class this new bridge class is approved as a prerequisite to advanced courses in Biotechnology, biology and other departments. The other piece about sustainability is that this four course certificate included some flexibility of choices for instance two different math classes could satisfy the certificate requirement and that can increase access which students can access the certificate and also the number of degrees we can award at the college. So now the next slide.

Synergy Between Grant Goals -> Sustainability

Katherine Krolikowski - This brings us back to a slightly bigger picture. So I wanted to start out by saying that there are a lot of different grants the fed into thinking about this course. And I wanted to note that we satisfied both the TAACCT grant that supported this work by making sure that this course helped a student build employable skills in a really short time. Make them career ready. And also led to a pathway that was regionally aligned. So there are other Biotech programs in our area. And this bridge program was designed with those other programs in mind. Students could stay here at our school but could also transfer over to other Biotech programs in the region. Another piece that I really wanted to talk about here is that it's important to consider a bridge program that allow students to have options.

It’s great to be a Biotech worker but it's also important to be able to move on to higher level transfer degrees; and this- I designed this so-that, that would happen. And a big piece of this success that we’ve been having is that this course is approved as a prerequisite to Allied Health Certificate courses. So Human Physiology and Microbiology -you see there on the right; Lots of students come to us wanting to get into those courses, and giving them exposure to a different industrial field definitely increases the possibility that some of them will consider that different type of job. Move on to the next slide- make sure we get done in time.

Goals and Challenges

Katherine Krolikowski - One slide after that. I’m going to skip this one. Thanks.

BIOSC172L

Katherine Krolikowski - Just to tell you about some successes; and that it's a slow, slow road. We’re in the Fourth Cohort right now. The first and second cohort had moderate enrollment and about 50% pass class; a few more than that completed. And a few of each cohort did enroll in the next level Biotech courses so persistent to the next level. The Third Cohort was better, compared to the first two. We had better completion, slightly better pass rate and a few more students persisted on to higher level course work. The Fourth Cohort which is going on this very fall has similar enrollments, still about 20 students; and we’re going to have 15 completers and I'm sure 14 of those will pass. So increased completion rate from 50% to 75%; and totally I don't know for sure- but I think about two-thirds are going to move on into a Stem or Allied Health plans for next semester. One final note about sort of data is that- just this week both a former colleague in the English department and a colleague in the math department came up and asked are we going to continue the bridge program after this semester. So I think that really speaks to sustainability based on collegiality between different departments in the school. So I want to finish up just by some quick, quick acknowledgments on the last slide.

Thanks To:

Katherine Krolikowski - And faculty across the campus were key to developing this so there’s a list of different faculty colleagues. Of course I had lots of administrative support from CTE Deans and we had many go through. And the final point I want to make is that I’m in a College District that really support innovation and action. And kudos to Dr. Helen Benjamin that allows us to try new things that might really improve student access and success. And I think I’m moving us on to Jeff and I know he also enjoys strong support across his college in Georgia. And-Are you ready Jeff?

Update on the Bridge to Bioscience Adoption at Athens Technical College

Jeff Rapp - Yes- Thank you Katie. Yes my name is Jeff Rapp. I’m the program chair for Biotechnology at Athens Technical College. I’ll first start off describing our challenges before we actually knew about the bridge program and kind of how we were dealing with those challenges and then what we did once we learned about the bridge program. Next slide please.

First Challenge

Jeff Rapp - So our first challenge was that students weren't getting past this gatekeeper chemistry course due to the poor Math preparations. We – I think the next slide shows

Solution: Basic Laboratory Calculations

Jeff Rapp - We had about 50 percent of students not passing the gatekeeper chemistry course. So we found out from a colleague who had a similar problem and Eric Westingner at Central Georgia Community College. He was, he started teaching a basic laboratory calculations class using this text

books shown in a slide by Lisa Seidman and we pretty much followed the textbook chapter by chapter and it is also, I teach them lab, so it's contextualized the way that Rob young was describing the bridge program should be contextualized and have content from the major. So I actually teach it in the lab and teach the basic laboratory calculations. And the next slide

Effect of Laboratory calculations Class (BTEC 2130) on Passing the "Gatekeeper" Chemistry 1 Course

Jeff Rapp - Shows- I believe our results for once we started teaching the basic laboratory calculations course; before we had about 57 percent passing the gatekeeper chemistry course and then showing after we had implemented the course and students took - they were passing at about 71%. So getting past the gatekeeper chemistry course. And next slide please.

Effect of Laboratory calculations Class (BTEC 2130) on Passing the "Gatekeeper" Chemistry 1 Course

Jeff Rapp - So then this is more recent data; so that the students who took the Laboratory Calculations Class, there were nine that took chemistry and then eight of those passed chemistry. So it's looking good for that, you know improvement in our persistence and getting students to go from re- enroll from semester to semester. Next slide please.

Second Challenge

Jeff Rapp - Ok the second challenge, students who were dropping out of the program, we're-generally weren't prepared for college coursework, had poor study skills and time management skills and also we're not- they had deficits in their laboratory notebook maintenance. And it was at this time that we learned- we met Elaine Johnson and she told us about the bridge to Biotech program in the City College of San Francisco. Next slide please.

Three Courses make the Bridge to Bioscience!

Jeff Rapp - So we already had two of the components in place for the bridge. We had our biology lab that we've been teaching several years, with very similar in content to the biology lab taught by the City College of San Francisco and our basic lab calculations is very similar to their math class for their bridge program. And so the final piece of the puzzle was the communication for lab sciences. So this is teaching the study skills, time management skills, resume writing, keeping a lab notebook, that sort of thing. And that's what the City College of San Francisco, Rob Yung in particular helped us develop that course; so we could have a full Bridge to Bioscience program and try to model it as closely as possible to City College of San Francisco because we were impressed with their retention and persistence rates. Next slide please.

Schedule

Jeff Rapp - So this is just to show that the three courses are required courses in the two-year associate degree program. So they're shown at the top there- the first semester, so they're required and not sort of something that the students have to take before they enter the program. They're included or integrated into the program. Next slide please.

BTEC 1150: Communication for Lab Sciences

Jeff Rapp - Other advantages for having the bridge program and using the Communication for Lab Sciences in that bridge, it forms a Cohort earlier in the program. We were forming a Cohort with students sort of in the second year of the program when they started one of their Microbiology classes; but by doing this bridge program it started the Cohort earlier which you heard Rob Yung mentioned how successful that is. And it also teaches study skills that are useful for the students in other classes they might take. You know other classes, general education classes for example. And in also resume, cover

letters and interviewing skills they learned in this Communication for Lab Sciences class; they can use to get part-time jobs even on campus we've had some of our students get work study positions on campus while they're still going to school here. And then finally lab notebook Maintenance skills are learned earlier in the program next slide please.

Retention of Bridge to Bioscience Students at Athens Technical College

Jeff Rapp - Ok so this is just showing some data. Our first cohort of eight students in the fall of 2012 and we ended up getting one of the students graduated in May and so than one of received a certificate in the fall of 2014. So that's about 25 percent although the slide say retained what I mean is persistent so persisting semester by semester through the program and then completion of the one student in last spring. Next slide please.

Retention of Bridge to Bioscience Students at Athens Technical College

Jeff Rapp - So then these are other cohorts again starting in spring 2013 in fall 2013 and following them through. You can see, although it says retention and persistence through semester by semester and those numbers seem to be improving. Next slide please.

Administrative Support

Jeff Rapp - Administrative support so, the school in general was interested in trying to improve our persistence and completion rates, so they liked this model also and wanted to implement the study skills sort of class, campus-wide. So now the school teaches this first year seminar, first semester seminar class campus-wide to all students; and that was initiated in the fall of 2014. And-the textbook we use for that class is shown there; but I still use a lot of the material that we obtained from the City College of San Francisco. Rob Yung's Reader for example, is a good resource to especially include the scientific content. And I believe that's it for that part of the presentation.

Questions?

Michael Lesiecki - Thank you Jeff. Colleagues I'd like to encourage you to put any questions that you might have in the question window. And we have several. Interesting enough, three people asked the same question, so I'll paraphrase it. It says to both Jeff and Katie it looks like your persistence and completion rates are increasing in each successive cohorts, we saw that in both Katie slides as well as Jeff's. Let me start with you Katie. What, did you make changes what was the reason for that? Can you attribute something to those changes that you saw?

Katherine Krolikowski - I have two guesses- right, one we got better at delivering the package to the students, so it was just a better experience so more people persisted and felt like it was well organized. And I think the second piece is really connecting our class to other courses in our department and in other departments. I think students knowing that they're part of a pathway has really improved the persistence; and it's taken a year to really get that through our curriculum system.

Michael Lesiecki - How about you Jeff? If you had to respond to that same question, what do you attribute that fairly significant increase you saw Cohort to Cohort?

Jeff Rapp - Ok- well a part of that is that the Cohorts early on you're just looking at more time that has elapsed so you might get more students leaving the program. I think that's a part of it. also just that first Cohort where we only had one graduate out of eight students, it was just the circumstances several of them had to leave because they had to say just had to move out of state or they have family members

who needed caregiving; so I think is just maybe in an anomaly- that first cohort and hopefully the other cohorts won't have the similar problems.

Michael Lesiecki - I thought both Jeff and Katie were going say it was their skill in running a bridge program that led to this increase. Actually it probably was to a large extent. You know we talked among our presenters that all of our students, mostly adult students of course, do have these situations where for conditions or circumstances beyond their control or ours influence their ability to stay with the program. Another question that came up let me let me pose this one. It's a technical question in a way. I think this would be-would go to Rob. Rob what did you mean when you said 1.75 FTE was reimbursable? Was that you Rob that said that?

Katherine Krolikowski This is Katie, if he doesn't pop in.

Michael Lesiecki - Ok Katie, you go ahead and say.

Katherine Krolikowski - Right-so you have one class right? And I think what he means you're paying for 1.75 of a teacher when normally you would just pay for 1.0 of a teacher. That was my interpretation.

Michael Lesiecki - Right- Now Elaine so how does this work at a college? How do you fund these things? Everyone wants to know that you alluded to that in your comments, Elaine. How do you fund these things that are typically taking multiple teachers?

Elaine Johnson - Well, we have a variety of different ways to do that and that's part of why we're having these comments about the National Science Foundation and Department of Labor because those certainly are ways that can fund; especially the beginning of these programs. Once we get a full enrollment and the classes pretty much pay for themselves. But your question about that extra teacher-- you know we could build arguments and I think that we should, about that fact that these students are able to pass the gatekeeper classes. They're able to get through the system faster. You know there- it has to be looked at as a success rather than just a question of cost for that one class.

Michael Lesiecki - Sure that's a good point, yeah.

Elaine Johnson - Yeah-And the other thing I'd like to go back to that question before this. On the as these courses grow and are successful the students from a prior Cohort come back and mentor the next Cohort free. They're so excited about what they're doing, so now you got a system that is built to grow. And it's built to share enthusiasm. It's person-to-person; these people tell each other about how much better they are doing and then they start to study together. Even when they're not in a Cohort anymore. They have built the skills to know that- that's an important piece. And so they there's- It's built to grow. And I think that's something we often miss.

Michael Lesiecki - That's a great point Elaine. You know let me follow up a question for you, and we've heard this throughout the presentation, we see it in the questions. If I start Bridge Program, suppose I was that one attendee who asked about the Manufacturing Program. If I start a Manufacturing Bridge program, realistically, how long will it take me to where I can claim I'm successful? It's going to be more than one semester, I know that. What do you think? Elaine let me start with you and then I'll turn to Rob to see what he says the same question. How long would it take realistically to create success in a bridge program, starting from zero?

Elaine Johnson - Oh I don't think that's an answerable question. I think that you can't determine that. There are so many variables - there's- You know if we get a big infusion of money. If we get different administrators. If we get a— It varies from school to school. That's why we're so excited about adapting and adopting; not just cookie-cutter saying this is what we're going do now you take it and build it. It has to be very individualized and we're also- The thing that we haven't spoken about as much as we probably should, are the needs of the industry in the local area. And I think that's really true in manufacturing, you're going to have an industry playing a role in this and the more that happens the more successful it will be.

Michael Lesiecki - Good point. Let me ask Rob Yung to come back on the line. Rob if you had respond to the question; you've been in the program for a long time now. You got your colleague in manufacturing, who'll ask you, Hey Rob, how long until I can achieve success if I start today? What would you say?

Rob Yung - Yeah, good question. Sorry I had microphone problems earlier. I think- you know what you're going find is that in that first semester, the success you'll have is having excited students. I mean if you look at the real numbers, it might be different, but I think students are really excited to be in Cohort, if that's what you choose to do. They're really excited that a lot of their skills gap is being addressed; and that their instructions concentrated just in where they need to be, which is their target goal. So I think it's successful to have excited students. Now you need more than that and I think in the terms of retention and success that first semester it's a lot of new stuff for a lot of teachers and there's organizational elements, like Elaine said, there are a lot of variables. So like all of us when we teach a new course in a new topic you learn a lot that you can apply to the next time. And I think you're looking at least a year at least two semesters to come up with- to have more success. So it's a great thing to talk about because if your administrator or someone above you says, "You know, I'll let you do this for a semester". Well that's not helpful. You need a commitment to something like a year, two if possible and then come back and visit data and say, "ok this work, it didn't work." Or, yeah of course visit data periodically at every semester. But I think you have success in the existing semester in building excitement, like I said, but it's going take a while to get things really right and that's an important message to everybody.

Michael Lesiecki - That's a good point Rob. One question for you talked- one additional question, you talked about the I-Best Model. One of our attendees says, "You know when you do these I- Best type of courses, are the Cohorts capped to limit the size?" You know that can often lead to success of you have a modest size group. Do you limit our I-Best courses or perhaps your other bridge courses capped in enrollment?

Rob Yung - I image they are, we have caps of 30 in some of our classes because they don't run effectively above that. I don't think an I-Best course would run very well at above 30. An ideally twenty or below, but of course we know that the school wants to pack in as many as possible. But yeah, I think they need to be capped. You can't have a lecture course of 70 at an I-Best model because a lot of individual instruction needs to happen for these type of student; because their skill levels may vary.

Michael Lesiecki - Excellent. Let me turn to another of our panelist, Jeff. Jeff here's the question. If you're talking to your Chancellor or whoever you have there at Athens, and you want to tell him or her your -about your success. What measures, do you talk about persistence, do you talk about completion? What's your best measure of success that you can tell an upper administrator that will get their attention? What do you use?

Jeff Rapp - I guess completion, that's the overall- I mean that's the overarching number. You know the number that we can graduate. Cause, we have a high placement rate. So if our students graduate they're most likely will have- either go on to obtain a four-year degree or they get jobs. So I think that's.

Michael Lesiecki - Completion, I bet that gets Community College people attention today, so I think you're right.

Jeff Rapp - In the state of Georgia, our funding is based on completion rates; the funding for the colleges.

Michael Lesiecki - We're talking about that here in Arizona but hasn't happened yet. Thank you Jeff. Katie, one quick question for you. You mentioned you learned a lot from your math and English faculty colleagues. Any turf issues, were they nervous about you coming on to their turf?

Katherine Krolikowski - Yeah! Um-No. Not at all. I really was so lucky to have an English department that had multiple people interested in working in contextualized learning and same with the math department. I think some of these basic skills type courses are frustrating to the faculty and that students don't always know what's the point. Why do I have to take an English class, why do I have to take a Math class? And so they were very excited to both share with their students in their class, how students can use these skills. And they- both of my faculty colleagues were very excited when I asked, "How do you do that? I want to do it the same way in my class." And-I think that was a really good feeling all around.

Michael Lesiecki - That's good. Thanks Katie. Elaine, we're going to give you the last chance to say something. Those of you looking at the clock will realize we are so perfectly on time. Let me do our last two slides here, well sort of like little commercial.

Join Us

Michael Lesiecki - Join us on January 21st for Leveraging Grants to Achieve Mutual Goals. You could sub text this. What Do You Do When Your TAACCCT Money Starts To Run Out? That's not exactly right, but I'm just sort of saying that tongue and cheek. It's been presented by Dr. Celeste Carter, who is the head of the ATE Program at the National Science Foundation. So I think all of you, including me, will find that interesting.

Q&A and Contacts

Michael Lesiecki - Here's some contact information. Those of you that will be getting this-these slides will have this at your leisure. As we go into our very final slide, Elaine what would you say if someone comes to you and say, "Gee, I'm really thinking about starting a course. I'm not sure where to start. Should I do it?" What advice would you give? I think you've told me that you think it's really worth it, well how would you convince someone right at the beginning to do this? What's your final word?

Bridge Learning Communities

Elaine Johnson - I guess that question really should go to the people that have started them. But the- the invitation to be part of a group and I guess that's why I started with the Communities of Practice, because some people feel so alone. We've um- when we first started Biotech programs in general, we- there were people in different parts of the country and each one was-- it was usually a single person, and they felt so isolated. And coming together we have been able to support each other over the years; and I think that's true with starting a bridge as well. People don't- they feel alone in starting these new

programs and to share what we've been sharing today, and to know that there are people that are willing to help and to talk and to share their materials-- think that's the bottom line.

Michael Lesiecki - That’s a great bottom line and a great wrap up to this webinar. Elaine thank you for inviting your colleagues, your co-presenters. And my compliments to Jeff, and Katie, and Rob- really appreciate what you've done today. And also working in the background, many of you know John Carrese, he was very important at pulling this webinar together. That officially concludes our webinar for today on Bridge Learning Communities. Thanks everyone for joining. Presenters just go ahead and click mute on your phones. Goodbye everyone.