

# Phillips Community College of the University of Arkansas:

*“Year 2 ATE-DISC Student Focus Groups – A  
Snapshot of Program Strengths, Challenges,  
& Emerging Impact”*

A Report To:



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*Inspired Social Research & Program Evaluation*

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## Introduction

Phillips Community College of the University of Arkansas (PCCUA) Advanced Technology Education (ATE) – Delta Information Security and Cyber (DISC) program is at the midpoint of its second year of functioning, through sponsorship provided by the National Science Foundation (NSF). This report summarizes the results of November 2020 student focus groups used to collect data on student satisfaction with the program, their experiences in transitioning to an online program format amidst the COVID-19 pandemic, and future career goals. In total, 14 students participated in one of two groups. Both groups were held virtually over Zoom. One focus group was conducted with Helena-West Helena Campus students (10 students) while another was conducted with Stuttgart Campus students (4 students). Results reported here assess themes emerging across as well as within both groups. It is the evaluation teams' hope that these results help inform the continued development of the DISC program as well as better understand how the COVID-19 pandemic has resulted in student adaptation and innovation in their program participation.

## Focus Group Results

In the first half of the group interview, students were asked to identify how they were recruited into the DISC program, the best parts of the program experience so far, and the skills they are learning that they believe will help them better prepare for a career. The second half of the group interviews guided students through a discussion on the resources used, additional resources desired, and overall program experiences.

### Recruitment Strategies<sup>1</sup>

Students across both groups identify a general curiosity and interest in computers as a primary motivator for entering the program. Helena-West Helena Campus students were primarily recruited by a campus advisor (five students). One student was recruited by a faculty member, and two were encouraged by family members to pursue this type of learning, and one learned of the program from a friend. All students from the Stuttgart Campus were recruited into the program by Ms. Groves, a faculty member and also Co-PI of the DISC program.

#### Faculty Recruitment

*"I went and talked with my general advisor, and she gave me Ms. Groves' business card. She said, 'Well, you need to talk to her to see what we can do.' So I talked to Ms. Groves about what had happened and she said, 'Well, is this what you want to do?' I said, 'Yes ma'am.' She said, 'Well, just come on down to my office and we'll get you set up in our program and we'll get your classes started.'... Ms. Groves is a very good advocate for the program." (Stuttgart Campus)*

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<sup>1</sup> Q1. how you found out about or were recruited into this program. How did you hear about it? How, if at all, were you encouraged to enroll?

*"It was through Ms. Groves. She talked about it one day before class, and I was in there and we went from there, pretty much." (Stuttgart Campus)*

*"I was just talking to my grandparents who live down here. They suggested that I started attending Stuttgart. I met up with the advisor and I started talking to Ms. Groves. She [Ms. Groves] signed me up and got me in all the classes, and I've really enjoyed it so far." (Stuttgart Campus)*

*"Ms. Groves recruited me after I took the information computer science course." (Stuttgart Campus)*

*"I was encouraged to join and was also recruited by a faculty member." (Helena-West Helena Campus)*

#### **Advisor Recruitment**

*"I found out about this program because [I told my advisor] I wanted to get into computers and they said, 'Alright, we are going to get you in here.'" (Helena-West Helena Campus)*

*"I like computers, so I came here, then my advisor helped me get into the program." (Helena-West Helena Campus)*

*"Ms. Cindy recruited me. She is a faculty member and advisor." (Helena-West Helena Campus)*

#### **Friends and Family Recruitment**

*"Who encouraged me was my uncle before he passed away. He was in the computer field, so that's what made me want to work with computers as well." (Helena-West Helena Campus)*

*"My mother was a part of [government agency] and I have always been interested in computers. My grandfather knows that, and I guess my advisor as well." (Helena-West Helena Campus)*

*"A friend of mine, he did this whole course, and I always loved computers, so I decided to do it too." (Helena-West Helena Campus)*

## Top-of-Mind Benefits<sup>23</sup>

Participants in both groups were asked what they have found to be the best part of the program. Those from the Stuttgart Campus took the opportunity to discuss the NetLab program component. These participants explain that NetLab gives DISC students access to hands-on experience in a way they otherwise could not access. In addition to the value of NetLab, Stuttgart students also mentioned the community built in the program - that they depend on each other for support, and the high quality the web-design course.

Helena-West Helena Campus participants found the support provided by program instructors to be a key program benefit. They report that the faculty are also practitioners in the field and that faculty help them to succeed through their teaching as well as additional after class support with homework assignments. These students also explain that the program, overall, has increased their interest in finding a career in the IT field.

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<sup>2</sup> Q2. What has been the best part of being in this program so far?

<sup>3</sup> Q9. Tell me about any other supports you feel you need more of to help you reach your goals? What is your "bucket list"?

**NetLab**

*"My favorite thing I'd have to say is NetLab. I really love the NetLabs that we do. I like going in there and experimenting with all the stuff that they have and getting the hands-on experience with that. Just seeing all the different things that you can do with all the different operating systems. I really like seeing how they work." (Stuttgart Campus)*

*"The NetLabs are easy to navigate. They work very well for us here at Phillips." (Stuttgart Campus)*

*"NetLab. When you read the book, it wants you to have two different virtual machine setups. Most people don't have a computer that has the capability of using maybe one or two virtual machines let alone the four or five or eight that might be required for certain NetLab activities. Not only can you use the NetLab to set those up, it allows me to just get in and it's already set up. I don't have to worry about installing the operating system or whatever application it might want. The NetLabs all run on virtual machines and a lot of people don't have the ability to run those." (Stuttgart Campus)*

**Instructor Support**

*"In the past, I've felt like a lot of teachers don't really teach you, they talk about what we're doing. Here, I feel like I'm actually learning the stuff a lot better, and I feel like I'm actually learning the course material, rather than still being told what the course is." (Helena-West Helena Campus)*

*"A direct example of the instructors being good at their jobs is that Ms. Groves is also the college's network manager. She knows how to set virtual machines up. She knows her stuff, but she also doesn't give you busy work that has no purpose. Everything she gives you is going to be useful, and she knows from direct experience as a network manager." (Helena-West Helena Campus)*

*"I like that the teachers can help us. Most of us are working other jobs. The teachers help us do our homework. I can send my homework to my teacher, and they can help me out and give feedback." (Helena-West Helena Campus)*

*"The instructors give you work and let you do it. They have faith in their students. They don't give pointless tests; they give you the work and it is up to you to do it with the book and their help." (Helena-West Helena Campus)*

*"The teachers, in general, are really, really good at what they do." (Helena-West Helena Campus)*

**Other Comments**

*"I would say that if you like computers than this is the thing for you. I was drawn in with computers because we all use them. It is interesting to know how they work. It has really drawn me into computers even more." (Helena-West Helena Campus)*

*"I really enjoy the community that we have in class... I feel like we're always very able to communicate with each other. I never feel afraid to ask a question like I might have in classes in high school. It's just a very open environment, it's very enjoyable to be in." (Stuttgart Campus)*

*"The class environment. If any of us had any trouble with anything, we've got Blackboard at our disposal to go on there, divert the discussion of discussion board, and ask them questions. Same way with Ms. Grove. We have her at our disposal. She's very good at getting back with us." (Stuttgart Campus)*

*"I would say that the big projects and stuff that we do, they give us the books that we use. It gives us very good diagrams, showing how stuff works and it helps us figure those out." (Stuttgart Campus)*

Participants also suggest program improvements to better support current as well as future students. Notably, a few students from the Stuttgart Campus indicate they have all the resources they need to be successful in the programs current form. The Helena-West Helena Campus participants need more, highlighting how the program can better help them to prepare for the hiring process: mock interviews, resumé development, and practice certification tests. One Helena-West Helena Campus participant, with agreement from their peers, suggests the program bring in guest speakers who work in the field to present their job experience to students. Students at this campus are less sure of their career path and the types of jobs out there for people with their degrees. They want more examples coming from employees in these positions within the community.

#### **Job Market Preparation**

*"Internships, that help us with getting a feeling about what we are going to do with our career. We would get some job experience in an internship and that would help us with what we are doing now."* (Helena-West Helena Campus)

*"Mock interviewing."* (Helena-West Helena Campus)

*"Resume development."* (Helena-West Helena Campus)

#### **Other Comments**

*"I wish that I had more experience with active directory. It is something that I wish that I had a little bit more hands-on experience with, because I don't really feel I would be able to actually go in and set it up myself."* (Stuttgart Campus)

*"There is not a whole lot of information on practice tests for certifications."* (Stuttgart Campus)

*"A speaker who can present their job experience and what they do. I think that would help us make a better decision about what we may want to be doing in our future."* (Helena-West Helena Campus)

The discussion of extra resources prompted Helena-West Helena Campus participants to express their lack of satisfaction with NetLab. This is a critical distinction between the two groups of students: The Stuttgart participants praised NetLab, while those from Helena-West Helena described it as "broken" and lacking the necessary context for them to perform the assigned tasks.

*"NetLab is so straight forward but broken at the same time. I don't need help working on it, NetLab itself is broken. Every time I am working on it, I get errors, and nothing works... I still want to use it because it helps, but it only helps when it isn't breaking itself."* (Helena-West Helena Campus)

*"NetLab is very useful in some respects, but I also think that two things aren't so useful. One is the fact that it can break in ways that wouldn't be expected from the input that you gave. Recently I was doing a NetLab that required me to basically spoof a mac address, but the end result was that it disconnected me from the NetLab for doing so. It's not only super finicky, but some interactions may not be expected or easily derived using logic. Some things just happen for no reason, but they do happen consistently at least."* (Helena-West Helena Campus)

*"Another thing about NetLab, the additional eBook that instructs you, they sometimes don't include the reason you are doing what you are doing. For me, the reason is important. I think that is how it could be improved."* (Helena-West Helena Campus)

*"I don't feel like NetLab is a waste of time, but I feel like giving more context for why we're doing things would be better."* (Helena-West Helena Campus)

### COVID-19 Challenges<sup>4</sup>

Across the globe, the COVID-19 pandemic has altered how people interact, including forcing shutdowns and transitions to remote learning environments for students. The DISC program participants from the Stuttgart and Helena-West Helena campuses are proud of how they persevered during the challenges presented by this global pandemic, but there is a clear distinction between the experiences among those at each campus. Those from the Stuttgart Campus specifically mention feelings of accomplishment related to their continuing education, nearing graduation, and maintaining their employment despite poor Internet infrastructure and COVID-19 restrictions. A couple of the Helena-West Helena Campus participants identify improved time management skills as an achievement. However, more identify time management as an exacerbated problem as a result of the pandemic, subsequently increasing the stress load of these students. In short, Helena-West Helena Campus students struggled more and found less to report out on as being proud of accomplishing than their Stuttgart Campus counterparts.

### Overcoming Challenges

*"Getting done with my work in a timely manner even though I work every day."* (Helena-West Helena Campus)

*"Most of my achievements during the pandemic have been purely personal. When it comes to school, I have a work study job and that gives me a sense of happiness, compared to doing nothing at home and attending classes. It's good because outside of that, there's not really much that I do. So I'm happy to have school classes and the work study to keep me busy because if I wasn't busy, I'd probably be very depressed."* (Stuttgart Campus)

*"I would say for me, I'm getting close to graduation. I would say being able to complete the courses necessary to get to the finish line, to graduate during this whole COVID pandemic."* (Stuttgart Campus)

*"That I still go to work every day."* (Stuttgart Campus)

*"Going virtual has put a big impact on Southern Arkansas with Internet connection. Last semester, when we went virtual, many times the Internet was down. For one of my classes I would get 20 to 30 questions into a test and the Internet will go down and be gone for four or five days because the infrastructure of the Internet is so poor."* (Stuttgart Campus)

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<sup>4</sup> Q11. What one thing are you proud of in being able to successfully overcome during the COVID pandemic? What are your continued challenges?

*"There have been times where our Internet has gone out for a week, and it is a problem. It sets us back, but that's not the school's fault. That is something with the place that we live." (Stuttgart Campus)*

#### **Continued Challenges**

*"To me personally, time management is a lasting challenge. Working 40 hours a week at my job and trying to still do homework is difficult." (Helena-West Helena Campus)*

*"It can be personally stressful to [be employed full time and a student]. I like to get done with my homework, but I am too tired after work and then it is past the due date for some things." (Helena-West Helena Campus)*

*"I personally struggle with mental health during COVID. Things like depression and anxiety, mental health in general has been a lot harder to manage. I have heard a good number of stories telling me it is not just me feeling this way." (Helena-West Helena Campus)*

*"I have procrastination problems, and I am doing better with that. I am still a little behind, but better." (Helena-West Helena Campus)*

### **Workforce Preparation<sup>567</sup>**

The knowledge and experience gained in the DISC program has made students feel prepared to enter workforce. Students from both groups discuss the hands-on experience gained in the program, with some pointing specifically to experiences in maintaining a PC, networking systems, and, among Stuttgart Campus participants, NetLab providing key experiences. These students see their education as being well rounded - preparing them for a range of on-the-job tasks. Students from the Helena-West Helena Campus added that they feel prepared for their future because of the program.

#### **Hands-On Experiences**

*"All of it is definitely beneficial. It's kind of hard for me to call out a specific aspect. I guess the experience working with different things, different operating systems, and working with different programs that we've never experienced before. It's really good to go in and get the hands-on experience that you wouldn't have gotten without the classes." (Stuttgart Campus)*

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<sup>5</sup> Q3. What is one thing you have learned so far in the program that has really made you feel like you are getting better prepared for entering the workforce? [PROBE: How would you say what you are learning is really helping you prepare for a career?] Q4. Beyond the technical skills you are learning in your course, what types of things are you learning that will help you as a professional in the workforce more broadly? [PROBE: Communication, timeliness, working as a team] Q6. What have you learned are the most important qualities an employer is looking for in newly graduated IT students? [PROBE: technical, adaptive/social] Q6a. How is the DISC program helping you to acquire these qualities?

<sup>6</sup> Q4. Beyond the technical skills you are learning in your course, what types of things are you learning that will help you as a professional in the workforce more broadly? [PROBE: Communication, timeliness, working as a team]

<sup>7</sup> PROBE: When you graduate do you plan on staying in your area for employment? Where will you be looking for jobs?



*"You can't really highlight just one class because they're all beneficial, they all intertwine with each other, and they build upon each other. ... I would say how that helps me going out into the field is that it gives me the knowledge when I do take a job in this field, if somebody were to come to me and ask me a question, say, 'Hey, what's going on with my computer?' You can say, 'Well, this and this is what's going wrong,' and tell them that they can bring it to you or can come to their workplace and help them fix it."* (Stuttgart Campus)

*"If I had to pick anything that really stood out, it would probably be the NetLab. Most classes have books that tell you everything. By technicality that does help with learning and understanding what you're doing, giving you a more real world look at problems, or giving you simulated scenarios in which you could be working in the future, just makes it a lot easier. You can write a thousand words about it, but showing somebody how to do something can be a lot quicker than reading 1000 words about it."* (Stuttgart Campus)

*"Pretty much everything that I have learned is helping me a lot. I have learned a whole lot, and it has helped me do my job better."* (Helena-West Helena Campus)

*"It's not only the knowledge of virtual life, it's also the knowledge of how to fix it. If it goes wrong, what you can do to make it more effective or make things better. How to position diagnostics, the basic knowledge of firewalls and specific forms, and so on. That sort of knowledge going into the future, regardless of career, I think will be very, very useful."* (Helena-West Helena Campus)

*"All of the [experience] is beneficial."* (Stuttgart Campus)

*"Overall, the program is definitely helping me. There have been some hands-on classes, and then there is the networking class I am taking."* (Helena-West Helena Campus)

*"I know computers are going to be the future. Everything we are learning now will be in the future. It helps me because it is preparing me for what is going on."* (Helena-West Helena Campus)

This discussion led participants into the question of what they are learning, other than job skills, that will help them when entering the workforce. Helena-West Helena Campus participants are more likely to note their acquiring of "soft skills" involving communication and professionalism, while those from the Stuttgart Campus center responses around the certifications and continued professional development opportunities available to program graduates.

#### **Professionalism and Communication**

*"First impressions make the most important and lasting impression. You need to make a good first impression, otherwise every time you see them afterwards it might not be good."* (Helena-West Helena Campus)

*"In one of the classes I have taken there was a part talking about professionalism and how that is helpful."* (Helena-West Helena Campus)

*"I feel like I have the resources to do most of the stuff that people would ask me to do in a job related to IT."* (Stuttgart Campus)

*"It taught me how to be more patient with people who don't understand technology, how to communicate with clients or the company, and give them a better understanding of their computers."* (Helena-West Helena Campus)

*"It is helpful learning how to explain things better to others and how to have the right attitude when you are explaining things." (Helena-West Helena Campus)*

*"Taking a professional approach to the employer, being optimistic about your knowledge, and being truthful. If they ask you, 'What do you know,' being truthful with them and explaining what you do know." (Stuttgart Campus)*

#### **Certifications**

*"Getting certifications, getting a few of those would potentially put you ahead of somebody who would have the same degree, but didn't have them." (Stuttgart Campus)*

*"Having the ability to not just say I can do this, but to do what is asked of me without someone helping." (Stuttgart Campus)*

When participants were asked if they will stay in their area for employment after completing their degree, only one student (Stuttgart Campus) said they would be staying local. All other participants indicate a desire to leave their immediate area. This similarity is noteworthy, but an important distinction between the two groups is seen in how they present their desire to relocate after graduation. Helena-West Helena Campus participants are critical of the area, believing that the city will not be able to provide a lasting home for them. Stuttgart Campus participants, on the other hand, spoke about opportunities elsewhere as a leading reason to move out of their area. One student did mention infrastructure issues in the Stuttgart area as a motive to relocate.

*"I will continue my education at [a university], and I will get my four-year degree in information technology. After that I will be looking for a job in Missouri or Northern Arkansas." (Stuttgart Campus)*

*"I'm actually not planning to stay within the Stuttgart area. I've had some leads within the Stuttgart area, but I'd really like to go to Little Rock. Something like that, nothing quite outside of Arkansas." (Stuttgart Campus)*

*"How the Internet infrastructure is set up in South Arkansas, there really isn't a whole lot of jobs out here for this sort of thing. Especially for programming jobs. A lot of people who do get jobs like this around here typically have to move out of the state or go somewhere else to find a job." (Stuttgart Campus)*

*"I want to leave Arkansas eventually." (Stuttgart Campus)*

*"This town is going to die. The only reason people come here is for the college. The mayor is trying to make things better, but this town, it is not okay." (Helena-West Helena Campus)*

*"I am not going to stay in this area because there isn't opportunity here. I am going to go to Dallas and try to find some more opportunities and internships there." (Helena-West Helena Campus)*

*"I personally am going to be trying to do online commission or freelance work until something opens up around here. For now, my plans are to just work online as much as I can, because that's something that is here to some capacity." (Stuttgart Campus)*

## Final Comments<sup>89</sup>

All focus group participants from both campuses were asked to identify one thing they would change about the program as well as one thing they would like program organizers to know. All said that there is nothing that they would change about the program outside of the additional resources mentioned earlier.

When asked for final comments for program organizers, Stuttgart Campus participants said that the program is well done and that program instructors are effective, suggesting high satisfaction with their program experience. Helena-West Helena Campus participants shared this view as well and used this time to discuss how this program is the foundation of a good career path.

### **Program Satisfaction**

*"I appreciate the respect for the individual that all of the faculty here have. As I said, they have work that they expect you to get done, and they will help you and give you the tools to do it. They respect your own autonomy and your time."* (Helena-West Helena Campus)

*"For me it would probably be just how good the teachers are for me."* (Helena-West Helena Campus)

*"They've done an awesome job, to be honest. Ms. Charlotte and Ms. Cindy have done an awesome job, they've supported us, they're always here. Ms. Groves has done a great job supporting me personally, because I've told her about some of the personal issues that I've had. She was there for me through that, and they're very supportive. If you tell them, 'I feel like I can't do it,' they will always say you can do it. And it really means a lot."* (Stuttgart Campus)

*"Ms. Charlotte, if you need something, just email her on a weekend or whatever, and she'll get right back with you, so we appreciate that."* (Stuttgart Campus)

*"Ms. Groves and Ms. Charlotte both are excellent for the program. They help very much."* (Stuttgart Campus)

### **Good Career Path**

*"For me I would say that computers are a high demand job, and you can easily find a career with them."* (Helena-West Helena Campus)

*"This is a good way to start out in computers."* (Helena-West Helena Campus)

*"If you are getting into computers, this is a good start."* (Helena-West Helena Campus)

### **Other Comments**

*"With this program, it can be used for good or bad, depending on what you want to do with it."* (Helena-West Helena Campus)

*"I don't really have any complaints. I think it's been a very enjoyable experience thus far."* (Stuttgart Campus)

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<sup>8</sup> Q10. Is there anything you wish you could change about your experience in your courses so far? [PROBE: course academic/technical supports, increased lab time, increased advising].

<sup>9</sup> Q12. What is one thing you would like organizers of the DISC program to know?

## Conclusion

Focus groups conducted with the DISC program students from the Stuttgart and Helena-West Helena Campuses yield primarily positive feedback for the program. From both campuses came praise for faculty and staff involvement and assistance. Advisors and instructors are seen as key resources that students know they can depend on for quick and sound advice. Participants from both campuses see themselves as becoming increasingly ready for a career in information technology and believe that they are gaining skills that will assist when on the job market and once they are employed. Further, all participants, when given the opportunity to suggest program modification, report that they believe the program is currently structured appropriately to support enrolled students. In closing comments, students from both groups indicate that they are satisfied with their experience. That data is indicative of confident and satisfied students in a program that supports them.

Nonetheless, there were diverging perspectives presented between groups, suggesting that there are distinct experiences for students depending on where they are located. Differences range from recruitment (Stuttgart Campus participants were recruited exclusively through Ms. Groves; Helena-West Helena participants were recruited by a range of sources including faculty and staff, family, friends, and their own research on programs), to experiences with program components (i.e., NetLab received opposing reviews between the campuses). Students at the Helena-West Helena campus also appear to rely more heavily on support from faculty while Stuttgart students mention the support they receive from each other.

While no direct question on satisfaction was posed, thematic responses from the groups suggest a greater degree of satisfaction among the Stuttgart Campus participants while Helena-West Helena Campus participants 1) report the best part of the program as boosted interest instead of program components; 2) exclusively critiqued NetLab, a key program component valued by Stuttgart Campus participants; 3) reported their desire to seek employment elsewhere as connected to issues with the area; 4) present few achievements during COVID-19, focusing on the added stress and difficulty – something Stuttgart Campus participants overcame in their provided achievements; and 5) emphasized the career path instead of program quality in their final comments.

While there should be caution in how this distinction is interpreted, it is important to consider why these two distinct experiences are present, what mechanisms are driving the different experiences, the overall impact of differences in experiences on student retention, certification, graduation, and post-graduation success, and what can be done internally to bring both campuses into a uniformity of experience and satisfaction across different students' lived experiences.

Given the results presented in this report, the evaluation team recommends the following for consideration by program organizers:

- Look into institutional and student composition differences between the Stuttgart and Helena-West Helena campuses that may be driving the unique experiences between the two. A better understanding of these two different stories told by the focus groups can inform future development and growth for PCCUA's DISC program. It may be the case the unique cultural elements among those on each campus call for a tailored program to be implemented on each campus.
- Find ways to provide assistance for adequate technology and Internet access for students, especially when the program is in the online format. Regardless of format, Internet access is critical to an information technology and cyber security program. Bolstering student access to this resource will help limit student setback and improve access a valuable resource.
- Continue to provide students with relevant, local examples of people successful in their career fields, using skills taught within the program. Amplify these examples as well as professionalism skills for the Helena-West Helena students, who are vocal in their desire for more of these examples and skill sets.
- Continue to help students prepare for industry certifications in the program, as opposed to independent test preparation and practice simulations. This will alleviate anxiety about taking the certification test, increase confidence going into the test, and may subsequently increase the number of students who go on to take certification tests.
- Provide students increased training on the use of NetLab. While the Stuttgart Campus values this resource highly, the Helena-West Helena Campus participants disagree. Increasing training on how to use the program and presenting this information early in the program will allow students to maximize the impact of such a valuable resource. This group may need more required focus on using this resource in order to better take advantage of all it has to offer them.

Consideration of any of the above should improve program functioning and facilitate student success – ultimately, producing more IT professionals for the Delta region.