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Message from the President

Welcome to the second issue of the *Journal of Innovation, Teaching and Digital Learning Excellence*. The last two years have seen many challenges for higher education and new obstacles and barriers for students. However, the faculty and staff of Delaware County Community College have continued to provide high-quality education and support services to our students with creativity and compassion, knowing that now more than ever we must be prepared to meet the needs of our students, personally and academically. This journal is a testament to the dedication of our talented and caring faculty and staff, and the many ways they strive to be student-ready and student-focused. I hope this journal inspires all of us to do what we can to help our students in their educational endeavors.

A handwritten signature in black ink, reading "L. Joy Gates Black". The signature is fluid and cursive, with the first name "L." and last name "Black" being more prominent than the middle name "Joy".

**L. Joy Gates Black, Ed.D.
President**

Message from the Vice President of Academic Affairs

The second issue of the *Journal of Innovation, Teaching & Digital Learning Excellence* features articles and perspectives of our faculty and staff in the aftermath of living and working through the COVID-19 pandemic. The pandemic has affected everyone in ways we may never know. Being mindful of the experiences all of us bring to the classroom or to the table as we resume our lives is essential to ensure we hear each other.

Enrollment has been seriously impacted by the pandemic and this trend is not unique to our College. According to data from labor market provider Emsi reported in *The Demographic Drought*, “First time student enrollment at community colleges fell a staggering 21%” (Emsi, 2021, p. 29). Considering over 4 million people left their jobs in January 2022 for the eighth consecutive month, it is obvious that COVID-19 has changed the priorities of our current and future students. The question we have to ask ourselves as educators is how can we adjust our approach so our students know they are our priority along with their academic pursuits.

In this issue of the Journal there are articles about creative approaches faculty have implemented in the virtual classroom to engage students. Student Engagement in the Synchronous Math Classroom and other teaching strategies reveal how faculty are reimagining the classroom for students. The reflections in this issue are evidence that our College community share the commitment to engage our students and are here to help them to achieve their educational endeavors.

Emsi. (2021). *The Demographic Drought*. The Demographic Drought. Moscow, ID, United States. Retrieved November 2021

Marian McGorry, Ph.D.
Vice President of Academic Affairs

Message from the Dean of Innovation, Teaching & Digital Learning Excellence and Educational Support Services

The trauma and scars over the last two years indiscriminately precipitated loss, grief, and isolation. For these reasons, echoing sentiments of welcome, best wishes, good health, and gratitude both virtually and in the hallways, yes, the hallways, at DCCC, has been music to our ears. Thanks to the college's support and resources, buttressed by the unflappable resolve of faculty and staff and students' desire to learn, DCCC has persevered in its student-centered mission to provide accessible education to all students.

To that end, the goal of this issue spotlights reflective pieces about teaching, learning, and working during the pandemic to share in processing what has happened, and anticipate the future.

The Spring 2022 issue features lessons learned and inspired by the college community during this uncertain time that challenged higher education systems, traditions, instruction, work-life balance, and many aspects of day-to-day living. Topics herein include student engagement, personal reflections about using technology, self-care, creative instructional approaches, and the impact of COVID-19 on the workforce development at the college.

Thank you to all who readily submitted their experiences to the pages that follow.

"The paradox of trauma is that it has both the power to destroy and the power to transform and resurrect."
Peter A. Levine

Alexandra Salas, Ph.D.
Dean
Innovation, Teaching & Digital Learning Excellence and Educational Support Services

COVID-19 Perspectives

Lessons Learned Through Teaching in the Time of COVID-19

Ian Stewart, Ph.D.

Adjunct Instructor, Science, Technology, Engineering & Math (Biology)

Author Biographical Note

During the day I work at the Delaware Nature Society as an ornithologist, where I conduct research on how the society's land management practices, such as the removal of alien plant species, help conserve biodiversity with a particular emphasis on birds. I also teach classes to adults and children about birds and birdwatching, conservation, and how to attract wildlife to your yard.

Lessons Learned Through Teaching in the Time of COVID-19

The semesters of 2020 and 2021 were an unprecedented challenge for both teachers and students alike. Normally, I try to make my biology class an interactive experience where my students are encouraged to ask questions and generate some discussion, and I also try to use active learning to tackle the most difficult concepts. I cannot deny that I struggled to apply these aims to an asynchronous class featuring pre-recorded lectures. I also had sympathy for my students who were missing out on the 'college experience,' of which a memorable part is making new friends during class. This is probably more common in laboratory-based courses like Biology where students work together in small groups. My lab groups would often become fast friends and sometimes hung out after class. Now, none of my students even saw their classmates let alone spoke with them.

So how does one engage students remotely while making them feel part of a class? First, I tried to make students seem like they were in the classroom by leaning heavily on the pointing options of PowerPoint in lieu of the laser pointer I normally used. As I moved through my slides I would underline key phrases, circle words for emphasis, or draw arrows across a flow chart or image. These live actions were exactly what I would have been doing in a face-to-face class. However, students were provided with the original 'clean' version of the slides as well as the version I had annotated in case they were distracted by my spidery scribbles and the subtitles transcribing my spoken words. Second, I made more of an effort to liven up my lectures by mixing in extra formats like textbook animations and YouTube clips so homebound students would not doze off during a long series of slides. Third, although no regular office hours were scheduled, I held virtual 'office hours' over Zoom two nights per week so that students could ask me questions one-on-one. Although less than a quarter of the class attended these optional sessions, I think the other students appreciated that at least they were offered. Zoom office hours also allowed me to associate a name on a roster with the face of a real human being, and to strengthen this virtual connection I had a quick informal chat with each attendee to see how they were doing.

I also expanded my use of the discussion tool in Canvas, which I had barely used before. I began every semester with an 'Introduce yourself' Discussion where I asked students what they like to be called, their preferred pronoun and their hometown, as well as light-hearted questions about their favorite sports team, TV show and place to eat. These may sound trivial but addressing a student as Katie or Matt rather than their official college listing of Katherine or Matthew makes a difference to them, as you are recognizing them as an individual with their own lifestyle and preferences. The exercise was optional, and students did not have to answer any questions that felt too personal. However, almost all my students participated (perhaps because I added the incentive of bonus points!). I set up the discussion board so they could read and comment upon each other's posts, and it was fun to see a dialogue unfold between students who realized they were from the same town or followed the same baseball team. On a more academic note, I asked how much Biology they learned at high school and what they would like to get out of the current course. This was not to transfer control of the class from myself to the students, but rather to understand where my typical students are starting from and how best I can address their needs. Again, I think asking this question made students sitting alone at home feel visible and valued, and perhaps more likely to engage in subsequent graded Discussions about course material.

To keep things in perspective, the pandemic was (and still is) a tragedy of personal, professional, and financial loss, where education could have easily fallen by the wayside. All things considered, DCCC did the best it could to accommodate the needs of our students, many of whom were juggling school with difficult domestic circumstances and appreciated the flexibility of online classes. Even though restrictions on in-person classes are relaxing I continue to use some of the teaching techniques brought about by COVID-19, and so in that sense, there were some silver linings to a very large and very dark cloud.

Creative Instructional Approaches in the Virtual Classroom

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Keywords: Creative Instructional Approaches, Virtual Classroom

Over the years, I have attempted to maximize learning and retention in my courses by utilizing creative instructional strategies. With a real sense of responsibility to help advance student success, I regularly examine my course content, looking for ways to improve. I have been teaching the online version of Personal and Career Development for a couple of years. So, when the COVID-19 pandemic caused significant changes to our lives and instruction quickly pivoted to online, I fortunately had some experience teaching in the virtual setting. Still, I wanted to add some spark to my online courses. Mindful that student engagement is especially important in the online environment, I was determined to make my online coursework as compelling as possible. Of particular importance to me was enacting creative, online teaching and learning experiences that foster student engagement through active learning. Some creative instructional approaches that I have used thus far to increase student engagement and retention in the virtual setting are interactive exercises, video-based learning, and self-directed learning.

Interaction with course material and amongst students is essential in the virtual learning environment. A way to enhance student connection to course concepts is by providing supplemental material that is presented in various ways. In my classes, in addition to reading the textbook and listening to lectures, students dig deeper into course content by reading articles, watching videos, and/or completing online surveys. For example, as a way to supplement learning about personality and career decision-making, students watch a video about “grit,” read an article about ways to develop a growth mindset using grit and resilience, and also complete a “grit scale” requiring them to respond to statements about how passionate and persevering they see themselves to be. Learning through these different modalities gives students the opportunity to interact with material on multiple levels. In addition, having an opportunity to interact with other students in the online setting is crucial. My students are able to connect and cooperate through classroom discussions related to the articles, videos, and surveys. These discussions allow them to synthesize course content by responding to prompts associated with particular concepts. Students are also expected to reply to classmates’ responses. Thus, active learning ensues, requiring students to connect and interact with both the material and their fellow classmates by sharing and learning from their classmates’ replies.

Of significant note, video-based learning is a creative avenue that can be helpful in facilitating student participation and understanding in online learning environments. My students watch videos pertinent to course content and then respond to discussion prompts and reply to classmates. For instance, during our wellness chapter, students watch the video “COVID-19: Five Things About Staying Mentally Healthy During the COVID-19 Outbreak.” (National Institute of Health 2020). This topic is important in these times because many people have experienced heightened anxiety during the recent pandemic. Videos like these, grounded in science and fact, support students by providing another avenue for learning and connecting course content to everyday life. Making the material as contemporary as possible further facilitates student learning and connection. Video-based learning is an effective way for students to gain insight into relevant, supplemental course content as well as learn from one another when expected to respond to prompts and then reply to classmates. And, I have found that student feedback indicates a preference for multiple learning modalities, especially videos.

Self-directed learning strategies such as utilizing chapter guides, reflection assignments, and projects can also help broaden understanding and connection to online material. Using Microsoft PowerPoint software, I created a presentation (chapter guide) for each chapter that includes key topics and fill-in-the-blanks for students to complete as they read the textbook and listen to the lectures. These chapter guides act as road maps meant to help students focus on and retain important course content within each chapter. To enliven chapter guides, I included artwork and pictures as another way to visually draw in students. Students seem to appreciate the direction and concept reinforcement these chapter guides add. Moreover, online reflection assignments provide additional self-directed learning opportunities. Self-reflection requires students to think more deeply and personally about course

content, allowing them to explore and reflect on subject matter in a way that is individualized. As an example, during our stress management chapter, my students reflect on how stress affects their lives by answering questions such as: What things do you most stress about? and What are two new stress management techniques you are willing to try? In addition, creative forms of assessments such as online projects can enhance student engagement and understanding. For instance, I implemented an individual, online project that requires students to complete an interactive, self-guided career and education planning system and then write a paper about their survey results. Reviewing their chapter guides, reflection assignments, and projects has given me confidence that students are connecting with the material in a meaningful way and has also provided insight into areas where some students might need additional support. In the end, I have found that these self-directed activities help bring life to my courses, enhance student participation, and build a sense of community in the virtual environment.

Teaching during these recent times of change has provided an opportunity to reflect more deeply on my course content and instructional strategies. It has challenged me to be even more creative with my active learning approach to teaching, figuring out how to best implement online coursework that involves students interacting with each other and the material and applying course content to their lives while keeping the material relevant and appealing. Moving forward, as I manage a variety of unique teaching modalities, I plan to continue implementing these innovative instructional approaches while finding new ways to creatively engage all learners across various types of settings.

Reflections on Student Engagement

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Author Biographical Note

Dolores Martino holds a Bachelor's Degree in Psychology from St. Joseph's University and a Master's Degree from Temple University. She provided vocational services to disabled adults in a non-profit rehabilitation agency for 16 years before working as a full-time administrator for 22 years at DCCC. She has been an adjunct professor teaching Psychology for the past 15 years.

Reflections on Student Engagement

During the summer of 2021, the Division of Innovation, Teaching & Digital Learning Excellence staff presented a variety of professional development sessions. I was fortunate to be able to attend many of them. One of particular interest to me focused on student engagement. The group of attendees was small and so the session became more of a discussion than a presentation. That small group discussion was actually the perfect vehicle for attendees to share the tools and techniques they use to increase student in-class involvement. I left that session with several specific, practical ideas to try in my next class.

Even after our session ended, I continued thinking about student engagement and active learning. I realized that I was already using a number of activities designed to give students the opportunity to be more engaged. I also realized that no matter how I tried the same group of students were the ones who participated on a regular basis. So, I decided to focus on three things that I now view as crucial for student engagement.

Building Trust in the Classroom

There are a variety of definitions for student engagement and active learning, but one common element is that students should be working on course material before, during, and after class. That means that, by trying to make our students more successful, we are creating stressful situations by asking them to perform in a way that is foreign to them. As I discussed this with students during the syllabus review, it became clear that most of them expected me to teach them rather than facilitate their learning. To change that *modus operandi*, I needed to create an environment where students felt they could learn from each other and value each other's perspectives. Students must feel comfortable being different and discussing opposing opinions in order to work toward a common goal. I now ask students to view the classroom as a testing ground in which it is okay to fail as long as they continue to work toward a better understanding of course concepts. The importance of helping students appreciate a multitude of viewpoints became clear to me during a discussion of relationships in my Psychology 130 class. The majority of the class agreed that they could never be best friends with themselves because they would be bored and annoyed. Divergent opinions and diverse experiences stimulate learning and healthy relationships.

Understanding Learning Styles

A comfortable environment in which students can take an active role only works if the activities fit their learning styles. Most students identify as bodily-kinesthetic or verbal-linguistic learners but to be sure to involve everyone I provide a variety of assignments including lectures, video and slide presentations, reading, and journaling. I also push each student a little out of their comfort zone by requiring research, small and large group discussions, and everyone's favorite activity, presenting to the class. Students are critiqued in a non-judgmental way in order to improve for the next time. I need to work hard to ensure that the criticism is constructive and that these activities are viewed as positive learning experiences. I also emphasize that what happens in Vegas stays in Vegas.

Find It Yourself

When I was in school, I would often ask my father a question and he would always tell me that I would remember the answer only if I found it myself. I wondered if he really believed that to be true or if he just did not know the answer. In either case, I learned quite a bit by doing my own research, and I have found that this technique is equally effective for today's students. I never answer a question that I think a student can answer themselves with a little work. Having students research during class is another practical way to stimulate discussion and to force the students checking sports scores on their phones to use technology for work rather than play.

My final thoughts regarding an engaged classroom are that it is an environment in which students work as hard as the instructor. The goal is that course concepts are taught and learned not only for a grade but also in a way that can be applied to everyday life. I hope that I will continue to learn new techniques and adapt to the needs of students to meet these goals.

Becoming Better in a Pandemic

Andrea Tucker, A.A.

Executive Assistant to the Vice President of Student Affairs & Strategic Initiatives

Author Biographical Note

I am the Administrative Assistant for the VP of Student Affairs and Strategic Initiatives. I have been with the college for a little over six years and I graduated from here in 2014. My chief purpose in life is to be a Redemptive Influencer who models a unique brand of emotional authenticity that seeks to build bridges, share stories and heal hearts in a manner that emboldens others to do the same. Working here helps me to walk in my purpose daily as I interact with students and my fellow colleagues. I am a wife to one man, mother of two children and the Gigi to three incredible grandsons!

Becoming Better in a Pandemic

Imagine waking up one morning to start your day only to discover that a deadly virus has invaded the world around you, and you must shut your doors and not let anyone in. Imagine a whole universe having to close and fear the unknown. Imagine having to now look at your loved ones with suspicion when they come back in from the forbidden world, wondering do you have it? Now imagine trying to wake yourself up from this nightmare only to find out that it is reality. We had no idea that it would not be so happy when we said Happy New Year in 2020.

Amid my own fears of the unknown, I had to muster up enough poise to help our students here at the college get settled in our present new norm. I remember being notified to schedule an appointment to come to the college to pick up a laptop and instructions on working remotely. I was not keen on entering the college building where others would also be, but they did a fantastic job managing the number of folks in the building simultaneously. I picked up my equipment, had a quick overview of how it all worked, and headed home to begin working temporarily from home. All the buzz on the news circuits predicted we would be back to normal by April or May at the latest; little did we know what was ahead.

After getting set up and working out some kinks, I was now ready to assist our students who had just as many questions as the rest of us. Working in Student Affairs, we jumped right in and began to help where needed. The first urgent assignment I was given was to call a list of students to offer them loaner laptops to complete their studies remotely. Most of the calls I made were smooth sailing, but occasionally I would speak with a student who was terrified of the virus and turned down the laptop because they did not want to come in and pick it up. I would spend time listening to them as they shared their fears, and although I was just as afraid, I would try my best to help them calm down. I would occasionally reach the student that was also an essential worker and could not fit in their schedules the time allotted for pick up but desperately needed a computer to do their schoolwork. I would connect them with the people overseeing the process in hopes they would work something out. The entire college's goal, which never wavered, was to ensure our students could continue pursuing and succeeding during their academic pursuits. We wanted to make life feel a little bit normal during very unnorml times. Our area also assisted Career and Counseling with answering and fielding calls where they should go to lessen the wait time for our students. Having to conduct all business online was new to us all. There were times when tensions and emotions were high, and it would present as frustration, hopelessness, and anger, and I would repeatedly remind myself that it was not personal. Knowing this would invoke compassion for the student remembering that we are all scared at our core. One of my proudest moments was when I encouraged a nontraditional student to not give up and quit. I shared my story of being a nontraditional student with her, letting her know it was difficult at times, but it was worth the feeling of joy I felt when I walked across the stage and received my degree.

I learned that no matter our different backgrounds, positions, or titles, we know how to come together for a common cause in times of need. I was already proud to work here at DCCC, but the pandemic took it to another level. Seeing how we banded together as one big Community to accomplish the difficult task amongst us was

joyous. To see how we were all willing to put our own fears aside to ensure our students were safe and successful is the true meaning of Community! It reminded me of the chant they do in the movie, Drumline “One Band, One Sound!” I believe we are a better college today than we were before the pandemic because of the pandemic. How something so awful can cause significant change to occur for the better is simply incredible!

Student Engagement in the Synchronous Math Classroom

Thejomayi Prasad, M.S.

Assistant Professor, Science, Technology, Engineering & Math (Mathematics)

Author Biographical Note

I have a master's degree in Mathematics and have more than 8 years of teaching experience across Community College and High School education. I joined DCCC as an Adjunct Instructor from Fall 2015 and a Full-time Assistant Professor from Fall 2020. I have taught a variety of courses at DCCC - Mathematics Review (Traditional and Individualized Course), Algebra, Modern College Mathematics, Introduction to Probability and Statistics, College Algebra, Pre-Calculus, Calculus and Statistics.

Prior to working at DCCC, I had an opportunity to work as Content Developer (Math) and Online Tutor (India, Singapore, UK, South Africa, US) for an online Math Education Center. Collaborated with Cambridge University and created animated lessons, assessment modules and learning activities that develop problem solving skills in students. I also worked as an Instructor at an Academic Center that focused on coaching High School students to take competitive exams and improve their test taking abilities.

Student Engagement in the Synchronous Math Classroom

Teaching is a lifelong process of learning new ideas, strategies and philosophies from students, colleagues, and the community. In my nine years as an educator, I have learned a great deal from my students who bring to the classroom different learning styles and sets of abilities. My role as an instructor is to coach and guide my students to reach their individual goals and, as I have learned, to simultaneously ensure that they feel welcome, safe, and comfortable in my classroom. I accomplish this in multiple ways, beginning even before the first day of class. Over the past several semesters, my teaching methodology has changed to reflect the new normal of synchronous online classes.

Using students' preferred names is a simple, but important aspect of creating a welcoming classroom. Before the start of the semester, I review the class roster to become familiar with the students' names and transcripts to understand who will be sitting in my classroom. Because I easily connect names with faces, I am able to quickly call students by name which helps establish a welcoming classroom community. In the virtual environment, I discovered that I could connect names and voices (as many students opt to turn off their cameras) with similar ease. Even without this ability, names are always displayed on Zoom making it easy to use students' names regularly during a class session.

For students to truly learn, they need to meaningfully engage with course content and class activities. However, eliciting participation is always a huge challenge for both in-person and online classes. Some students in my algebra (MAT 128) class are either not comfortable or not confident in their ability to succeed in mathematics. The online format presents multiple new obstacles, especially with audio and video connections. Students may have technical issues with their computers or limited internet connectivity. Additionally, some may be unable to unmute their cameras and/or microphones because, for example, they are sharing space with other family members, partners, or roommates. These challenges led me to try strategies unique to the online environment.

Initially, encouraging and maintaining student participation was difficult and I implemented several new techniques to engage students. One strategy that had worked well in previous semesters was asking students to show the work they did on assigned math problems. Since most of my online students did not enable their cameras, last semester I started calling on them - in the order they appeared on Zoom - to verbally explain (or show) their work. As the student explained what they did, I wrote their steps on a shared Zoom whiteboard so all students could see. This technique evolved over the course of several semesters.

At first, I attempted to use a physical whiteboard trying to mimic a traditional classroom on zoom. This method had two major limitations: I could not move outside a 24”X36” area and sometimes the lighting in my room caused a glare from the students’ view. Next, I used the whiteboard on the laptop. This also did not work well: My handwriting was bad, and I could not control the mouse movement resulting in messy presentations. During the Spring 2020 Professional Development session I learned that I could air play the whiteboard from the iPad to the laptop and share it on Zoom. This is the technique I ultimately adopted.

The iPad whiteboard, which works with the Apple-Pencil, offers numerous features that blend well with my style of teaching. My writing could appear in various colors and fonts, and I was able to switch between the whiteboard display and my camera during lecture. Additionally, the work on the whiteboard can be saved and posted in Canvas to assist students who miss the live class or wish to review the problem solutions. My students have commented that they greatly appreciated the use of the e-whiteboard.

Another effective technique to promote participation is the use of breakout rooms on Zoom which allow students to discuss, interact and collaborate in small groups. I craft group membership so that higher performing students are paired with struggling students to encourage in-class peer tutoring. Effective strategies for these types of small groups include think-write-share, show me the work, and read me the answers. To help maintain high levels of engagement, I offer encouraging and appreciative words when students contribute to the class. An added benefit of graded in-class assignments is increased and sustained attendance. By varying the timing of in-class work, students have been more likely to arrive on time and remain logged in for the duration of the session.

Periodic formative and summative assessments are another area where the synchronous online class format is challenging. In my classes, assessments are used to identify areas for improvement (both from my side and the students’ side) and students who may need extra support. Students in my classes are assessed using multiple strategies: class participation (e.g., breakout rooms, group work), in-class assignments, projects, chapter tests, and a comprehensive final exam. Because I use Canvas to update grades, students can monitor their progress at any time during the course. In addition to this, I also have informal conversation with my students for constructive feedback during class hours or during my office hours to be sure that I am meeting their needs and effectively communicating. Additionally, I use Connect to Success flags and kudos to provide feedback to students based on their individual performances. For those who are struggling in class, I schedule individual sessions during office hours to assist them in identifying weaknesses and creating a study plan so they can succeed in the course.

Given the situation, I understand that remote learning is the modality of the future. To continue to improve the class experience for my students, I am exploring other ideas such as 1) blending asynchronous and synchronous instruction to stimulate student discussion, 2) adapting think-pair-share project-based learning activities, and 3) comparing features of Microsoft Teams and Zoom to determine which better fits our needs. I am deeply passionate about teaching and realize that education is not one size fits all. Over the past year-and-a-half, I have implemented various strategies and brainstormed ideas for class participation and student engagement in synchronous online learning. I am looking forward to trying these strategies in my in-person classes in the coming semesters.

Is Anyone Really Listening?

Lori Marchetti

Administrative Assistant, Science, Technology, Engineering & Math

The question is, are we really listening to one another? With so much going on in our business and personal lives, there comes a time when you should ask yourself, are people really listening to me and am I truly listening to them? During the onset of COVID-19, when we were all sent home from work for 16+ months, no one communicated with students in person (sorry but I don't count ZOOM). This presented quite a challenge for students, faculty, and staff. I don't think anyone knew exactly how to handle this effectively. Educators could have the best laid plans for any type of situation, but when it comes to listening to someone, face-to-face communication cannot be replaced, at least in my opinion.

I had the opportunity to interview Supporting Talent in Academic Recruitment for STEM (STARS) students last year just before graduation to get their insight about the program. This program has been designed to serve students majoring in Engineering, Mathematics and Natural Sciences. Scholarship recipients participate in activities and experiences to foster success in achieving educational and career goals. The administrators of this grant are responsible for ensuring that we meet the goals set out in our proposal and follow the NSF guidelines. Now, even though I had to do these interviews via ZOOM, I was acutely aware that these students needed to be heard and I made it a point to look them straight in the eyes. I tried my best to have them focus their attention on me and listen to the questions I was asking them. The goal was for them to feel that energy between the both of us. The results of the interviews turned out positive as was relayed to me by the external evaluator of the grant. Needless to say, I was relieved to hear that from the NSF folks. However, it still didn't feel the same as when it's done in person.

Having started my career at DCCC in the Math and Science Testing Center, followed by 4 years in the Learning Commons and now 4 years in the STEM division, I have spent all my career at DCCC working in-person with students every day. Having said that, I am more than confident to say that nothing compares to in-person communication when it comes to learning and training. During the pandemic, if I spoke to a student over the phone, I can detect when someone else was in the room that might be distracting, if the student was driving, if there were children in the room, a TV on, a parent speaking to them or a mother telling the student what to say. The list goes on and on.

Returning to campus on June 7, 2021, was an adjustment in the beginning, but after a few weeks it felt like we never left. Most of us were happy to see one another and have a live chat, but after a few weeks, things sort of went back to the way they were pre-pandemic.

So, ask yourself this question, how do I know when someone is really listening to me? I've observed a few things during my interview with the STAR students that I'd like to share with you that signals to me that the person I'm engaging with is listening:

- We are making eye contact
- The person leans in
- A facial expression
- Body language
- The person asks questions
- The person doesn't interrupt
- You have their undivided attention
- Interesting follow-up questions

I can recall during one exchange with a STARS student who said to me, "How do you like working from

home?” I said, “It’s taking some getting used to.” She said, “I can’t wait to go back in person as my grandmother keeps bringing me food while I’m on ZOOM, so please ignore her if she just shows up out of the blue.” Honestly, I think that sounds like a pretty good gig.

So, if you find that some of the points above are happening on a ZOOM call, then BINGO you win the prize. If not, you may have some work to do.

Lastly, having been back in the office for over six months, it is clear to me that students are still not comfortable with returning to campus. I don’t even need to see the numbers, all you need to do is walk down the hall, enter a restroom, visit the cafeteria, etc., and you will see empty spaces. Sad as this may be, it is a reality that isn’t about to go away anytime soon, so do your best to LISTEN!

Clinical teaching experience: Strategies, motivation, and significance in teaching during the COVID-19 Pandemic

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Abstract

The declaration of Coronavirus disease 2019 (COVID-19) as a Public Health Emergency disrupted the educational system and created a practical and logistic challenge in clinical teaching for nursing faculty and other healthcare clinical teaching. This article focuses on Delaware County Community College's (DCCC) nursing faculty clinical teaching experience during the pandemic. It also shares the challenges and motivational strategies applied by the Associate Degree Nursing (ADN) faculty to adapt to the drastic shift of the COVID-19 pandemic to demonstrate teaching excellence in the best possible way.

Keywords: pandemic, clinical learning experience, COVID-19, nursing, internal medicine, challenges, teaching excellence, and strategies.

Author Biographical Note

Biji Georgy has been a professor of nursing at DCCC since 2013. She started teaching clinically for DCCC in 2013 and became a full-time faculty in the Spring of 2018.

Prof. Georgy has an extensive background in nursing education, almost 21 years of didactic nursing teaching experience in the classroom and clinical teaching. Georgy taught in the Baccalaureate nursing programs in India, the Middle Eastern Countries, Houston (Texas), Gwynedd Mercy University, and Eastern University (PA). She has a Baccalaureate Degree in Nursing Science from India, a Masters' degree in Nursing Education and Leadership from Wilmington University, and hopes to complete a Ph.D. in Nursing Education from Capella University by the Spring of 2023.

In addition, Prof. Georgy is a member of the National Society of Leadership and Success (NSLS), the nation's largest leadership honor society, and The Sigma Theta Tau International Honor Society of Nursing, the second-largest nursing organization globally. In addition, she does volunteer for many community services such as homeless shelters, teaching ESL students, mentoring graduate students, and teaching Sunday school. Recently Prof. Georgy volunteered for the COVID-19 Vaccine Clinic at Penn Medicine Chester County Hospital to vaccinate (delete the) first responders in the community representing DCCC faculty during the midst of the COVID-19 crisis.

Clinical teaching experience: Strategies, motivation, and significance in teaching during the COVID-19 Pandemic

Challenges of Faculty and Students

Nursing students were under a tremendous amount of stress to cope with the new normal. They have their clinical training at the acute care hospitals to have hands-on practice of the nursing skills learned in the simulation laboratory with their clinical instructors. The pandemic has impacted the clinical experience of ADN students and presented them with many challenges. The significant difficulties noted during the pandemic were limited clinical sites for a large cohort of nursing students for an adequate experience. Some of the inevitable challenges during the clinical experience were the long 12-hour clinical days, high turnover of students in a short period, and restricted clinical areas that impacted clinical experience during the pandemic.

There was a fear of the chain of infection and how it would affect us and our loved ones. The stress and the lockdown from COVID-19 affected the sleeping patterns of students and faculty, and we began our long 12 hours of

clinical experience with full Personal Protective Equipment (PPE), tired with inadequate sleep. The strict COVID-19 individual clinical site guidelines were beyond the expectations for the students and faculty. Our COVID-19 policies and schedules needed to be revised weekly due to increasing demands following COVID-19 protocols. During the pandemic, interaction with other students and faculty was restricted due to social distancing. In addition, there was news of health care workers getting infected by the virus in large numbers and even of nurses losing their lives while taking care of COVID-19 patients. This made it more frightening to be in the clinical setting for practice.

We felt like we were thrown into the battlefield against an unknown enemy without even the right weapons to fight it. The shortages of PPE were enormously frustrating, having a tremendous effect on us all, even for the strongest, and most resilient. Wearing the PPE for a prolonged period caused students and faculty to have severe fatigue. The face mask, shields, and goggles interrupted the clinical practice as it was in the way of using the stethoscope to assess the patients. The foggy goggles and face shields made it more challenging to see to perform the physical assessment on the sick or immunocompromised client.

A nursing program needs to have sufficient direct clinical/practicum learning experiences throughout the program of study to meet end-of-program student learning outcomes and prepare the student for practice at the appropriate level of education and the licensure examination (Foreman, 2019 & Peiró et al., 2021). The fear of not being prepared enough to move on to the next level of nursing was inevitable. So, students were under tremendous stress in having insufficient clinical hours to practice nursing skills in clinical settings before they graduated from the nursing program. It was emotionally challenging for nursing students; it significantly affected the clinical experience with the limitations of working with the registered nurses and specific patient populations. So, the nursing faculty strived to maintain the nursing program's core values by providing adequate skills based on their level of nursing education and requirements to the best capacity while maintaining safety.

Motivational Strategies

Clerici, et al., (2020) stated that the most critical part of nursing education is the clinical experience. The goal of clinical educators is to connect the classroom's theoretical knowledge and critical thinking to transform it as hands-on clinical practice as a competent nurse. During the clinical experience, the clients were afraid to come to the hospital when they initially became ill. Whoever was admitted to the hospital was either very ill or contagious. Therefore, the DCCC nursing faculty had to prepare the students to integrate their theoretical knowledge into practice by giving them support and flexibility. In addition, faculty used multiple motivational strategies to increase confidence, support, and a one-on-one formative evaluation with each student was conducted more frequently than usual.

One of the motivational strategies that we applied was open communication to express student concerns before starting each clinical day. We implemented a short 5–10-minute huddle before clinical for this open communication process to give them confidence and support. The above strategy reassured the students to support them to reach out to the instructor immediately for concerns they may have while in clinical practice. Students also had the flexibility to take 5- 10-minute breaks at any time to make them comfortable while keeping their clients safe in their clinical practice. A goal for clinical faculty was to give students hope and confidence. A further plan to support clinical expertise was to promote students working together with their peers and faculty to improve their skills with additional practice opportunities. Being flexible and having extra options helped the students pass the skills on their first attempt.

The two C's, open communication and caring, adopted by the nursing faculty figured prominently in clinical teaching. Students had the freedom to discuss any concerns with their faculty. These caring and communication techniques enhanced the students' therapeutic and interprofessional communication, thereby aiding in successful course completion. Applying this strategy during the pandemic helped us promote the mastering of necessary skills. Exceptional teaching excellence was essential for the restricted clinical environment. A student-centered, flexible teaching strategy enables faculty to recognize responsibility and accountability (Loftin et al., 2020).

The small group pre-and post-conferencing in an extended 12 day clinical aimed to adapt strategies to individual student learning needs. One-hour post-conference with the clinical groups was designated to review each student's clinical experience, helping them share experiences to use towards their future clinical practice. In addition to the huddle described earlier, we had a 10–15-minute conference in the morning to discuss the planned learning objective for the day based on the clinical assignment. Choosing a student team leader during the pre-conference each day helped students achieve the daily learning outcomes promptly and work collaboratively as a team allowing the instructor to work with individual students. This practice provided students with team leader role experience as well.

The flexibility of providing one-on-one academic advising via Zoom after the clinical day helped students to decrease stress and added support to individual learning needs. Students practiced skills at home while zooming with the instructor or peer and tested those skills outside the patient area to master them before practicing on a patient. This practice has increased the confidence level of both students and faculty for maintaining patient safety in the clinical area.

COVID-19 Community Clinical Teaching

As an unexpected public health nursing opportunity, DCCC senior year students had the chance to be part of the COVID-19 vaccine treatment program by administering the vaccines at various clinics throughout the community during their last semester before graduating from the nursing program. Dealing with this pandemic made our clinical experience challenging and overwhelming. We successfully attained our stated learning outcomes regardless of the clinical experience in acute care hospitals or community clinics. There were instances where some colleagues had to go on leave of absence because of the unbearable mental toll it took on their lives during clinical teaching. Slowly, however, many things have improved:

1. The PPE shortage became a thing of the past, and the numbers of COVID-19 patients began to wax and wane.
2. Some effective drugs and ventilation strategies became available to help COVID-19 patients with Acute Respiratory Distress Syndrome (ARDS).
3. The vaccine rolled out much sooner than ever before in the history of vaccines.

All of this did make things a lot better for faculty and students in the hospital setting. We learned more and more about the nature of the virus; we had some tools now to fight it and prevent it. The challenges we face now are educating the population regarding the necessity of the vaccine to prevent the occurrence of new variances of COVID-19. To everyone's dismay, we cannot get the number of vaccinations we had hoped and at the pace at which they should be administered to decrease COVID-19 illness and deaths. It is expected that, with all the governmental efforts, the incentives businesses are offering for vaccinated people, and better-emerging data on vaccines, people will be less reluctant to receive it.

All that said, public health professionals caution we are not out of the woods yet, and there needs to be a more significant effort to reach people with the most accurate and most recent data on vaccines. Also, until herd immunity becomes a reality, there still needs to be measures taken to prevent the spread of COVID-19, including wearing face coverings and social distancing, especially amongst unvaccinated individuals. In addition, variants of the COVID-19 virus present new challenges to public health and safety.

Significance

The Commission on Collegiate Nursing Education (CCNE), 2018's Standards for Accreditation criteria requires the first-time Licensure exam takers to achieve a minimum of 80 percent pass rate on their first attempt to demonstrate the nursing program effectiveness. According to the National Council of State Boards of Nursing (NCSBN) report, the Baccalaureate Degree Program's national first-time National Council Licensure Examination

Registered Nurse (NCLEX-RN) pass rate for 2021 is 88.57% and for Associate Degree Nursing (ADN) program is 82.13%. The Pennsylvania State Board of Nursing (PASBN) of DCCC students who graduated during the pandemic successfully achieved the first-time NCLEX RN pass rate of 89.09%, above the NCSBN's Baccalaureate Degree's pass rate and well above the required 80% benchmark for ADN students.

The report from Accreditation Commission for Education in Nursing (ACEN), 2018, states that NCLEX pass rate standards reflect nursing education quality. Comparing it to the other ADN Pennsylvania Nursing School, the average NCLEX pass rate is 84.99%. Our excellent teaching strategies to motivate diverse learners with support, genuine caring, and flexibility with assignments helped our students achieve higher first-time NCLEX pass rates during the pandemic compared to other similar programs during the same time frame.

Yeah! We made it, and our talented and dedicated nursing faculty proved their teaching excellence even during the pandemic with first-time NCLEX -RN pass rates above the national and state averages. We kept our organization a great place to study and a great place to work!

Conclusion

As we move forward with the pandemic, additional issues may arise that will need to be addressed, such as admissions and program onboarding, acclimating students to new training environments, managing inadequate resources for distance education, distance and virtual practices, and remote versus in-person research opportunities. In addition, academic institutions should focus on providing beneficial teaching formats and innovative ways to support students under pandemic conditions. Finally, developing to help students structure daily life and establish initiatives to strengthen students' self-efficacy beliefs should be considered. Thus, given future unusual circumstances, the faculty will be able to assist students to graduate on time and provide thought-provoking clinical experiences while remaining safe.

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How COVID-19 Pandemic Changed the Ways We Communicate in a Calculus Course

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Abstract

After all Delaware County Community College's courses became fully virtual in April of 2020, many of them remained online in either synchronous or asynchronous formats until the present day. Whether faculty members had prior experience with online teaching in pre-pandemic time or had to adjust to the new course format rapidly, they were presented with new pedagogical challenges such as efficient communications, methodology of material presentation, lack of rigorous proctoring, technology issues, and many more. This article focuses on the experience of establishing consistent communications while teaching a hybrid Calculus I in synchronous/asynchronous online format.

Keywords: virtual leaning, online course format, synchronous instruction, teaching and learning during the pandemic, student-teacher communications

Introduction

Typically, while sharing the experience of offering a course in a new format, one would start with the literature review that led to the research question and then share the study methods, results, and their interpretation. Due to the fact that it has been less than two years since the rapid move of all DCCC courses online, there was no time to approach the question about the benefits of offering Calculus I course as synchronous/asynchronous virtually as opposed to its hybrid counterpart in pre-pandemic times. It was rather an emergency situation in which the class was moved online in Spring of 2020. It was offered in the same format for three additional semesters, including the current one, and the necessary adjustments and improvements were made simply based on the experience of the instructor and feedback from students in what can be described as a “guess-and-test” approach. Clearly, it came to a point in time where the experience of these semesters needs to be summarized, thoroughly analyzed, and shared with the College community. Calculus I will officially be offered as a pilot of synchronous/asynchronous format in Spring of 2022, and official data collection is planned for that semester. This article simply provides insights and preliminary observations as well as potential directions for future research.

Literature Review

Yang et al. (2020) name three key challenges in virtual learning: engagement, understanding, and assessment. Each of these categories is multi-faceted. Many other academic resources that address the relatively “young” topic of teaching and learning during the COVID-19 pandemic discuss various aspects related to the complex categories mentioned above. For example, Smith et al. (2020) examine levels of attentiveness of students in a virtual environment after the “abrupt transition to teaching online” (p. 200). Quan (2020) indicates that, at the beginning of the pandemic, we could have found the tentative resolution to the situation in which teaching is happening without face-to-face communications and calls for finding efficient strategies to foster and improve student self-study skills. Garcia-Alberti et al. (2021) focus on assessment in the virtual environment. While the scholars can select their area of interest and focus on it, the instructors must deal with a variety of tasks while teaching their virtual classes and trying to figure out the best way to do so at the same time. The decision to write about communication in a virtual course was made because establishing good communication may be viewed as the first step toward effective instruction.

Sharing Observations and Experience

Once a course is switched from face-to-face to a virtual synchronous format, the instructor cannot avoid any

questions listed in the literature review section. Additionally, there are new questions and problems to worry about. Will enrollment in a synchronous course be better or worse? Are the students technologically prepared to take a course of this kind? What additional equipment will the instructor need to make the course more efficient? What online activities will help to achieve the academic goals specific to this course? While dealing with these questions may become an almost overwhelming experience, an important step in the process of resolving them is to define priorities. Proper teacher-student communication should be at the top of the priorities' list as they are important from the moment the course begins.

In order to help students get a sense of community in the virtual environment as well as to keep them motivated and engaged, I utilized the following strategies:

- **Weekly forums** became a small part of the grade. The required posts were either answers providing feedback or discussions about problem solving for certain topics. For example, students had to present one problem from the unit homework that they found the most challenging and explain how they overcame difficulties with that problem.
- **Quick checks or short virtual activities** were implemented to keep students engaged during a Zoom class meeting. These ungraded activities included work in virtual breakout rooms and encouraged establishing connections to recent or previously learned topics that were relevant to the material being presented on the day of the activity.
- **Weekly check-ins** were short written assignments submitted on a weekly basis and graded with the use of SpeedGrader, which allows the same approach to grading electronically submitted work as one would use while grading work on paper in a face-to-face environment.
- **Use of non-electronic summative assessments** helped to inform both teaching and learning. Grading of all major exams was done with the use of SpeedGrader as well.
- **Problem solving sessions** in the middle or at the end of a course unit were used for summarizing the work done on at least three sections of the textbook or to prepare for a unit test. The students started their review work in pairs in virtual breakout rooms but worked together as a whole group during the last 30 minutes of the class meeting for a more thorough discussion of the problems that were presented.
- **Virtual office hours in the afternoon** were valued by many students. Though the instructor cannot mandate the attendance of the office hours, it is certainly worth it offering them on Zoom so that students know that they can go online and see the instructor's face, as opposed to sending an e-mail and not having a live conversation.
- **Video recordings of all class meetings** including the problem-solving sessions in groups were posted in Canvas for easy accessibility and quick reference. The majority of students said that this approach helped them immensely with both time management and working on the material.

Conclusions and Suggestions for Future Research

Calculus I offered in synchronous/asynchronous format online is just one example of a course that started to attract many more students than it had when offered in the classroom with an online component. Initially, students see it as a course that provides more flexibility with their personal schedules. As the students choose to take a course in synchronous/asynchronous modality, the instructor's job is not only to make sure that they are not disappointed in the course format selection, but to ensure that the virtual learning environment will be engaging, efficient, and accommodating. There is a great deal of work that needs to be done in this research area, and the experiences of the instructors who accumulate observations and practices with virtual courses are invaluable. This is true even when we are in the early stages of the process of designing such courses. For my own short-term research plan, I looked to Yang et al. (2020) because their recommendations reflect the work that I have already started in my virtual class while acting on an intuitive rather than a literature-supported platform. These recommendations include using teamwork for set up and implementation of virtual classroom activities, providing a clear rubric to help communicate expectations and provide constant feedback, emphasizing process more heavily than the final answers when assessing students' work, and finding efficient tools to help students explore difficult content in a self-guided manner. I am looking forward to having these discussions within departments and divisions and hope that together we can make virtual teaching and learning a success.

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Performance Based Instruction through the Pandemic

Philip Lachimia, Ed.D.

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Abstract

In the Workforce and Economic Development Division, all our courses have a hands-on component associated with them. We needed to develop a system to deliver these courses and keep all the students and staff safe. The theory portion of the class was conducted virtually, and students were brought into the Advanced Technology Center to complete the performance portion of their courses.

Keywords: Workforce, Performance Based Instruction

Author Biographical Note

Dr. Philip Lachimia was formerly the Administrative Director of the Delaware County Technical High Schools and is now an Assistant Dean at the Delaware County Community College in the Workforce and Economic Development Division. He received his undergraduate degree from DeSales University in English/Education, his master's degree from St. Joseph's University in educational leadership, and his doctorate degree from Temple University in education administration. He has been a teacher and an educational administrator for over 29 years. He has served as a teacher, assistant principal, principal, administrative director, and assistant dean.

Workforce and economic development: Performance based instruction through the pandemic

In March of 2020, the staff left the college for spring break. At the time I thought we would be back to work after the break, and I knew that the colleges rooms and offices were going to be 'deep cleaned.' I did not expect what happened next. The COVID-19 pandemic had spread in the United States quickly and we needed to adapt to the new environment. Classes in the spring of 2020 were suspended and no in-person instruction took place at the school for the balance of the spring semester. Staff were told that we needed to work remotely.

The Dean, who later became the Vice President of the Workforce and Economic Development Division, met with an industrial hygienist to see what needed to occur if students were to be allowed on campus. The difficulty in the Workforce and Economic Development division is almost everything we teach is done in person, after all, how can one be taught to weld, build a house, or correctly arrest a perpetrator *online*? Most instructors of skilled trades agree that the trades need to be taught face to face, there is a limit to the amount that can be taught via Zoom or Canvas, and this is only when the students are open to the idea of a hybrid course. It was decided that the theory portion of each class was to be delivered remotely and that the hands-on portion of the class would need to occur in the building safely. Still, instructors had concerns about the virus and teaching in person, since little was really known about transmission. With the help of the hygienist, along with the recommendations of the CDC, state guidelines, and college procedures, we developed a plan to bring all the spring semester students back to complete the classes they started at the beginning of the semester.

Approvals were given for the division to have the students return and complete the required face-to-face portion of the classes that were suspended in the spring. Since they were dealing with future essential personnel the Police Academy and EMT courses were able to come to campus earlier than the rest of the division. The classes for the rest of the division (Advanced Technology and Skilled Trades) began at the beginning of Summer II, 2020 at the college. Staff were working remotely and were allowed to be in the building twice a week. Every staff member selected two days, so an administrator was in the building along with the students at all times.

As the Assistant Dean of the division, I was nervous about putting together a schedule since we never dealt with a pandemic before. I wanted to be sure that everyone stayed safe, and I discussed the building requirements

with the Vice President of the division prior to developing the class schedule. Masks were required for anyone inside the building and 6' social distancing was mandated in classrooms and labs where feasible. Four air purifiers that would remove any droplets from the air were purchased. These air purifiers were placed in labs where students could not follow the 6' distance mandate. Areas like electrical, where students worked in cubicles that mimicked work in real life, is an example of this type of instruction set up. The performance part of each class was put in place with all the classes being offset so the students would not enter and exit the building at the same time. Also, there was a limit of 200 people on a floor at any time. Protocols were established with Facilities and Construction Services for cleaning rooms after the students left and before a new class arrived. Internal protocols were established in each class so the common touch points and tools that were shared could be cleaned and sanitized after every use.

Learning how to instruct the theory portion of each class online was a challenge for many of the instructors. Some teach theory within the context of the practical side of their courses, making separating the two seem impossible. In the end, they overcame whatever obstacle was in their way and eventually, most of the instructors were able to put their theory portion of the class on the learning management system, Canvas. Some were able to add an additional Zoom class into the mix. Overall, many of the classes were able to deliver the theory remotely and some courses, such as Blueprint Reading and the safety classes, were able to go online completely.

Specific instructors in welding and carpentry went above and beyond to ensure the success of their students. Jenifer Wendling-Foulke, a welding instructor, researched what was available to instruct students online. She assigned weekly videos for the students to view from Weld.com as well as Weld Tube. These tutorial videos were followed by tests and quizzes. She also created modules on Canvas and was able to post the student's test scores and keep track of all their online activity. Online topics included stick welding 101, welding defects, and how to read welding symbols. For the face-to-face sessions, she made sure she had wipes, masks, peroxide spray bottles, latex gloves, and spray disinfectant. The class size was limited because of the social distance mandate and overall, she felt that she and her students were safe.

In carpentry, Dave Hill was able to teach his theory online and the practical aspects of each course in person, although he personally felt that the trades needed to be taught face to face and that there was a limit to the amount that can be taught via Zoom or Canvas. He claimed the reason for his success was only that the students were open to the idea of part of the course being held online.

There was a team approach to safety with faculty, administrators, and staff working together for the sake of the students. When students reported that they came in contact with someone who was infected with the virus, their instructors immediately reported the incident to their supervisors who reported it to the vice president. The vice president became the point person to inform HR. Since the situation was always changing, these incidents were managed on a case-by-case basis. The vice president would send emails to faculty, administrators, and staff detailing schedule changes and steps required to safely complete the suspended classes and move forward.

Other emails were sent as the situation changed. Our guard was up, and everyone was on board. At one point, there was a feeling of complacency, and everyone was reminded about the protocols that were in place. Things went smoothly and everyone felt safe. There were no reports of any student or instructor testing positive for the virus in the Advanced Technology building. The spring suspended classes finished with most of the students completing the classes successfully. Things have changed dramatically over the past several months and now most of the staff are vaccinated. There is a feeling of relief and belief that things can and will return to normal. The division continues to offer classes both remotely and face-to-face in a safe manner.

Articles

The Myth and the Measure of Paralegals: “Shadow” Attorneys at the Forefront of Law, Justice and Community Service

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Whenever I teach a new class of paralegal students, I like to start my first lecture with a snapshot of a discussion that I had years ago with a woman at a law firm in Saylorsburg, Pennsylvania. I’ve taught courses in criminal law and procedure, juvenile law, labor and employment law and civil procedure, but I always like to come back to this one conversation because it was a defining moment in my legal career – and it was long after I had graduated from law school.

I had always believed that I was very fortunate to begin my legal career in juvenile law. In 2002 I was the juvenile advocate – the traditional term for a lawyer who represents minor children (here in Pennsylvania, that’s anyone under the age of eighteen) – in the Office of the Public Defender of Monroe County in Stroudsburg. That meant that I represented juvenile delinquents – the none-too-innocuous term that we give to those minors who are either suspected of, or convicted of, offenses that would be crimes if committed by an adult. I had been on the job for about two months when I telephoned the Saylorsburg firm one day to discuss a case with Jack Paulsen, the attorney who represented the co-defendant of my teenaged suspect. Both juveniles had been charged with burglary and vandalism of a vacation home in Blakeslee, Pennsylvania. Jack wasn’t in the office, so I found myself conversing with a woman on his staff, whom I at first believed to be Jack’s law partner. Her name was Sandra, and she was quick, courteous and spoke with a measure of authority. I was about to get a shocking if altogether rudely illuminating revelation of the breadth and depth of my own legal knowledge, to say nothing of someone else’s.

We began to discuss the evidence against the boys, but as the conversation progressed, I went wide-eyed with admiration and not a little jealousy of the remarkable knowledge demonstrated by the woman with whom I was talking. No more than a minute into the phone call Sandra began to reel off clouds and clouds of legal knowledge and forensic strategy: statutes, case names, rules of procedure, evidentiary tests, exclusionary rules. She quoted from the Pennsylvania Juvenile Act. She cited whole passages from the Pennsylvania Adoption Act, the Judicial Code, the Child Protective Services Law, the Pennsylvania Crimes Code, and the Mental Health Procedures Act. She suggested which motions to file and which probably would and would not succeed. She accurately predicted how the district attorney, the juvenile probation office (JPO), the juvenile court hearing officer (JCHO) and the presiding juvenile court judge would view our various filings, pleadings and arguments. She discussed socio-criminological and psychiatric theories of juvenile crime, and even suggested which drugs should be administered should our two juvenile clients be found to have psychological or behavioral deficits underlying their crime spree. Until that day I never knew that major depression can be treated with a monoamine oxidase inhibitor (MAOI), a term that I had not heard since my college days a quarter of a century earlier.

One embarrassing dimension of this revelatory interlude was the time element: all of this took place in a ten-minute span of conversation. Needless to say, I was dumbfounded and more than a little startled by the expertise that this woman was demonstrating, but my self-consciousness was somewhat assuaged by my belief that she was a fellow attorney and was practicing in a jurisdiction, and a subject-matter area, in which I had only recently come aboard. Finally, wholly unwilling to learn from her any further (or to admit that that was precisely what I was doing), I decided to disarm the whole humiliating discussion by skewing it into the realm of social small talk by asking Sandra where she had gone to law school. And another bomb, the biggest of the day, was dropped.

And it was the biggest shock of all: “I didn’t,” she replied. “I’m Jack’s paralegal.”

The reason that I enjoy that story is because it highlights one of life’s greatest intellectual contradictions: discovering that someone that you thought had limited faculties turns out to have enormous intellectual power: in this case, the greatest power of all mankind, the power of knowledge, and legal knowledge at that.

Another reason that I like to tell that story is because it crystallizes a distinction vital to the public's understanding of the legal and paralegal professions: the difference between a paralegal and a lawyer, and between a paralegal and a legal secretary. The last difference is real and significant: a legal secretary is exactly that – a secretary, possibly highly trained and even highly efficient, but still a long distance removed from a paralegal. And while it may seem a heresy to my fellow attorneys, I always lead off my lectures to my paralegal students with a cautionary aphorism: *lawyers have no monopoly on legal knowledge*. “Watch out for that phrase, ‘you need to think like a lawyer,’” I tell them. “It’s one of the ways that lawyers the world over have monopolized their profession and their abilities, by inculcating a shibboleth that only they can conduct a proper legal analysis.” Anyone, I like to tell them, can reason like a lawyer simply by studying the law the same way that you would study any other science, like mathematics or physics or chemistry. And paralegals over the decades have emerged as a significant force in that myth-busting.

The truth is that paralegals are a force in law, justice and society whose time has come with the ability to be topical, to expand without dislodging, to compete without conquering. The current trend in paralegal advancement and skills enhancement throughout the world exemplifies this. Indeed, many countries have begun to allow and even to encourage a massive expansion of the paralegal profession through the dual machinery of (1) certification or licensing and (2) carefully comprehensive legislative and judicial supervision and oversight, which ironically has benefited the paralegal profession as well as the courts by encouraging the assimilation of ever wider horizons of responsibility and professional practice which just a few years ago would have been unimaginable. And in the Great Age of the Coronavirus, paralegals continue to demonstrate that they are vital not only to the legal profession but to the political realities of confronting the pandemic from inside the legal profession, its offices and its courtrooms with enhanced technology.

To be sure, most paralegals fulfill the vital function of support to a lawyer, a law firm, a corporation or a government agency. I always tell my students that a mere knowledge of the law, while it is the first principle, is simply not enough: paralegals are of no value to their bosses unless they can replace them, to literally step into the boss's shoes by executing the vital tasks ranging from the drafting of filings, overseeing billings and scheduling, meeting with and interviewing clients, and most important of all, conducting legal research and case analysis, all of which culminates in the drafting of persuasive legal documentation such as complaints, answers, briefs, memoranda of law, petitions and motions.

Legal assistants, of course, have been around for centuries, but the paralegal as a distinctly insular professional first came into vogue during the 1960's. Although a paralegal is not a legal secretary, originally the two positions were synonymous, and decades ago a paralegal did, and still do, what any secretary did: answered telephones, set appointments, invoiced clients, made coffee and picked up or dropped off the laundry. But the modern paralegal is a legal professional, fully functional in the role of a “shadow” lawyer. The law in most countries requires that paralegals must be supervised by an attorney, but that is radically different from saying that a paralegal functions in an intellectual vacuum. As mentioned, the crucial value of a paralegal to the boss, whether a senior partner, a judge, a DA, Congressman or Senator is simple: you must not only have the ability to step into the boss's role, but to be a problem-solver, like any doctor, engineer or corporate manager. You serve the boss by becoming the boss, by taking on those chores which clutter the desk blotter, the rolodex and the little black book.

Paralegal duties and responsibilities are guided by, and regulated by, local statute. Lawyers can actually give legal advice. Paralegals cannot, nor can they set fees. They can draft legal documents like pleadings, motions, briefs and petitions, but they are not permitted to execute (sign) any of these instruments, and they cannot actually represent clients at the bar of the court. Violating any of these conditions will lead to a criminal charge of *unauthorized practice of law*, a misdemeanor in most states. But even that is changing: increasingly, paralegals, through their professional advocacy organizations, legislative lobbying and sometimes even outright litigation, are slowly but surely gaining the right to client representation in a narrow but ever-widening spectrum of legal services.

Underlying this trend is an emerging tendency toward ordinary if adventurous diversification, a talent that marks the best paralegals. And that, once again, means being able to do what the boss does: in other words, to function as a lawyer, to argue like a lawyer, in effect to be a lawyer: to write legal memoranda, draft pleadings, cite cases, frame

an argument and prepare cases for litigation. The only value that a paralegal has to an attorney is to be able to fill that attorney's role while the attorney is occupied with other matters. There is no other way to say it: to be successful the paralegal must be able to out-lawyer the lawyer.

To be sure, legislative oversight is an advantage to the paralegal: because a paralegal is responsible to the supervising attorney, the paralegal actually gains a measure of support and even protection from the political influence and pressure found in many courts that lawyers themselves are unable to insulate themselves from. It allows the paralegal to experiment, to be daring, to explore and challenge the bounds of legal intellection in ways that most lawyers would probably avoid.

And so significantly, the trend toward licensing paralegals is on the rise, a very beneficial development. Currently, paralegal practice embraces at least registration, and in many jurisdictions, certification. Most colleges and universities now offer paralegal certificates, and sometimes even degrees. The trend toward "guilding" or at least organizing paralegals into professional advocacy organizations has led to a commensurate increase in the educational demands and opportunities which have expanded the paralegal profession from the coffee corner to the need and ability to function as substitute lawyers.

In the United States, paralegals can be certified through the National Association of Legal Assistants (NALA), which administers a two-day examination on a variety of subjects vital to paralegal success, such as analytical ability and the American legal system, bankruptcy, contract law, criminal law and the estate system. The National Foundation of Paralegal Associations (NFPA) offers a Paralegal Advanced Competency Exam, a four-hour exam on a variety of legal topics.

And this has not occurred without a price: doubtless threatened by these developments and obviously fearing competition, the legal profession has staunchly resisted the expansion of paralegal services into areas which would allow paralegals to actually represent clients, and have gone so far as to advocate the increased penalization of paralegals who appear to cross the line into client advocacy. They want the boundaries of *unauthorized practice of law* broadened, its definition widened, fines enhanced, and have even demanded incarceration of paralegals whom they believe have crossed the line into client-case advocacy.

An interesting constitutional question arises from this dilemma: in the long run, the law is speech, and free nations have always had to confront the truism that there is little to be apprehended from a healthy dialogue about the law. Clearly, the most crucial and incisive form of that dialogue is plain old-fashioned courtroom advocacy, so there seems little danger in a carefully balanced and informed argument to the court, no matter where it comes from. For example, under the famous decision *Faretta v. California*, a criminal defendant has a constitutional right to represent himself at trial. Yet paradoxically, a paralegal with much more training and legal knowledge would be barred from representing him.

The picture becomes even more fascinating when one peruses the international landscape of paralegal tradition. Contrast the American reality with the practice throughout the rest of the world. In England, paralegals technically have very limited rights to litigation before courts, are restricted to support staff work while actual litigation is the province of solicitors and barristers. But with proper accreditation, they can appear as Police Station Representatives, meaning that they can give legal advice to criminal defendants in police custody. Again, it is a little difficult to see why any nation on earth would limit such a vital function exclusively to barred attorneys.

As in the United States, Canada allows paralegals to merely assist lawyers, and to work under their supervision. However, in Ontario, paralegals are licensed, and with the state of Washington are the only two jurisdictions in the Western Hemisphere where paralegals are regulated as officers of the court. The "Ontario Experiment" has taken on astounding proportions for the legal profession: paralegals must take a licensing examination and if successful may operate within a defined scope of practice, representing clients in matters such as immigration, landlord and tenant disputes, labor law, small claims court (which hears disputes under \$25,000), and specific criminal matters. By virtue of their office, licensed paralegals are commissioners for taking affidavits (swearing oaths) and can even

prosecute or serve as justices of the peace. They can represent defendants in Ontario's provincial offences court, summary conviction criminal court, the small claims court and administrative tribunals such as the Financial Services Commission or the Workplace Safety and Insurance Board. They are governed by the Paralegal Rules of Conduct and must maintain liability insurance like any lawyer.

The Japanese have similar respect for the power of a paralegal. They are known as scriveners (i.e., one who writes), must pass a certifying examination and can represent clients in minor judicial proceedings.

Paradoxically, the coronavirus may have had one beneficial effect on the entire legal profession: the sidelining of many lawyers, judges and litigants has allowed and even required paralegals to advance to the front lines of legal services delivery in the context of electronic media such as video technology and demonstrations and the use of the Internet. In large measure, this is due to the explosion in technology in the courtroom and the paralegal's ability to marshal the knowledge required facilitate the need for safe litigation through distance (on-line) and ZOOM hearings. At Delaware County Community College, we teach a course called "Technology and the Law," in which paralegals are trained to utilize electronic media to meet the demands of effective trial preparation with methods such as PowerPoint displays, video demonstrations and simulations in the courtroom and the use, now required by almost every court, of electronic filing. With the pandemic, these needs have made paralegal talent even more vital to the conduct of litigation. Until the last year, I would never have believed that I could conduct hearings, even trials, on my laptop. Yet the law has made the adjustment and the paralegal profession is uniquely positioned to compensate for the demands imposed by the past year of COVID-19. Legal institutions from the highest federal courts and inner-city blue chip law firms down to the local sheriffs and legal aid agencies have had to rely on paralegal professionals to supervise the enormous demands of litigation technology.

So the landscape is changing in ways that should be of immense satisfaction not only to paralegals but to the legal and judicial professions as well. No one can argue that the expansion of knowledge, and the coterminous application of the rules of social engineering, would be of less than enormous benefit to our world. I find, as I did that day long ago in Stroudsburg, that a good paralegal can be a crutch, a worthy support, and a balm to the innumerable difficulties that arise in the unending war of every attorney: to seek the truth, and to eradicate injustice. Paralegals are worthy soldiers in that effort. It is truly exciting to see them grow and prosper, and it is a trend that I hope will continue long into the future.

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A Personal Reflection on Using Canvas' New Analytics

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Abstract

When our college faced the pandemic, the newly improved Canvas New Analytics tool played an important role in assessing student learning and performance. Three simple tools used from New Canvas Analytics – course grade analytic, weekly online activity and communication helped to gauge student progress.

Author Biographical Note

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Keywords: New canvas analytics, communication, student engagement, pageview

Introduction

With the sudden shift to fully online learning environments due to the shutdown brought on by the pandemic, higher education instructors struggled to adapt to the new modality, while also trying to provide adequate student support and sustain high quality course engagements (Dali, Caidi, Thompson & Garner, 2021). At Delaware County Community College, we utilized the Canvas Learning Management System (LMS) as the teaching and learning platform for instructional delivery, coupled with live streaming technologies such as (Zoom, Canvas Conference). Research has shown that Learning Analytics dashboards are an invaluable tool to inform students and instructors about course engagement and learning progress (Park & Jo, 2015). While the virtual system for the college was designed to foster flexibility and student engagement, the lack of real-time interactions that is part of in-person teaching made it hard to monitor student work, evaluate student engagement, provide in-time feedback, and accurately assess student progress. However, since the LMS contains much data about student use and engagement in the course, the learning analytics provided by the platform proved to be an important support system for instructors who were able to use the data to inform their pedagogy. In particular, I used three features provided by Instructure (parent company providing Canvas) New Analytics (NA) to facilitate insight into the course related activities of my students, provide instant feedback, monitor participation and intervene when necessary. In this paper I will elaborate on the three features of New Analytics that enabled me to overcome issues with monitoring grades and participation, providing real time communications, and generating reports for sub sections or individuals that provided greater insight into their performance.

To understand New Canvas analytics, it is important to know that it's a tool that allows you to filter and compare sections and individuals to class averages. It works for graded activities like assignments and discussions.

In this paper, I will focus on interactive tools included in the Canvas New Analytics which enhanced my ability to monitor student progress proactively. I have used this feature since the summer of 2020 and found it to be very useful for my students and myself. After constant monitoring and evaluation this effective teacher-student intervention has contributed to the improvement in overall student learning as seen by increased student performance in my class. This type of intervention rendered the following results:

1. Increased student willingness to learn
2. Opened connections with students

3. Served as an early intervention for at-risk students
4. Supported learning quality and class productivity
5. Enhanced student engagement and persistence in the course

The New Canvas Analytics feature is found on the right sidebar of the course homepage.

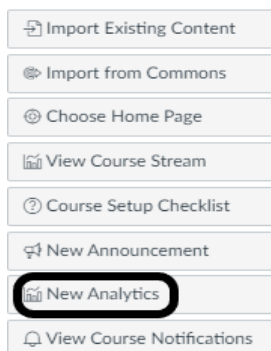


Figure 1. Canvas homepage bar

The four areas of new canvas analytics that I used and are as follows:

1. Course Grade - Graph that visualizes student submissions and grades for all assignments.
2. Weekly Online Activity - Chart showing average page views and average participation. Each data point gives more information about student involvement.
3. Communication – Interactions between the instructor and the student.
4. Reports – View and download information on missing (late, excused) assignments, class roster and course activity.

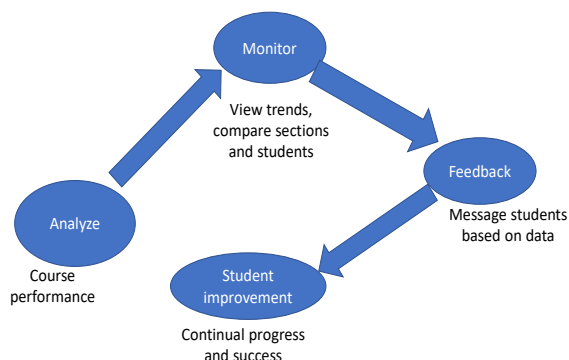


Figure 2. Student improvement flow chart

The above figure depicts how to analyze, monitor, and give feedback for student improvement. Additionally, we can download the report and get a further in-depth analysis.

Here I am going to discuss my experiences in class with reference to three topics - Course Grade analytics, weekly online activity and communication.

1) Course Grade Analytics

The overall average of this class is 86.49%. As a way of comparison, each data point in blue refers to all students and the green data points refers to an individual student. The third datapoint from the left which is data from “Exam#2 MS PowerPoint 2019” shows a class average of 73.1 % and a student score of 85.7%, which is well over the class average. While checking the class details, I found that all students were present and on time for the exam. Furthermore, the chart data shows different percentage grades for each exam.

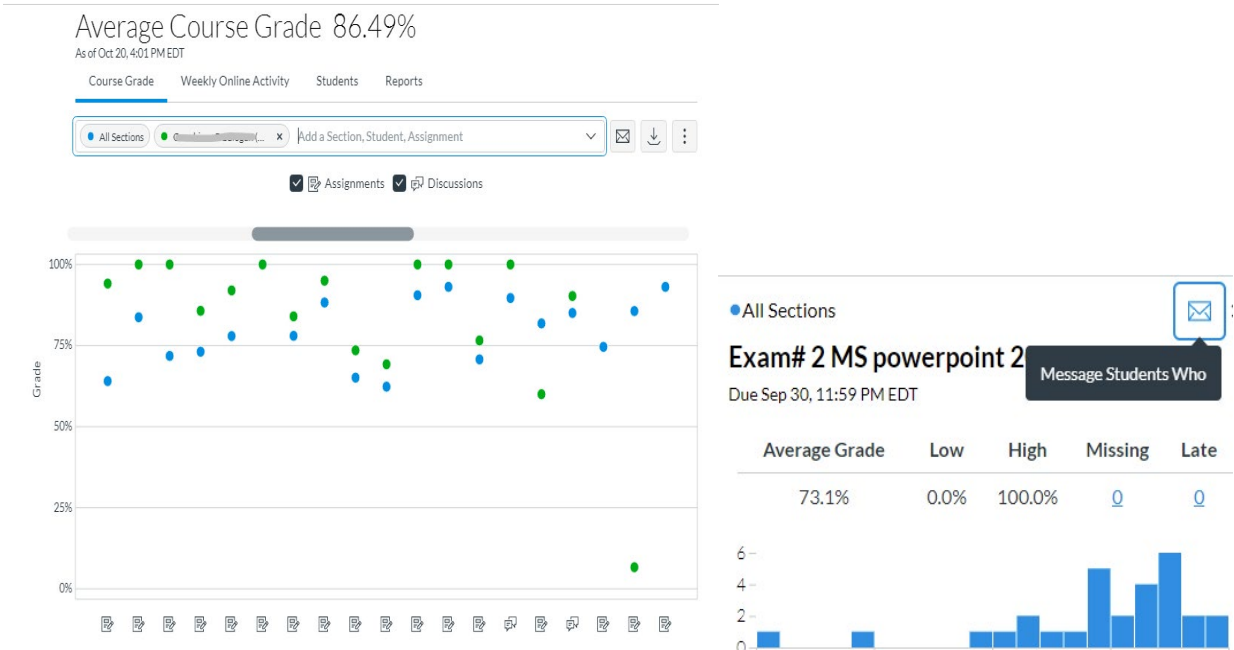


Figure 3. Exam grades

This chart above shows a student’s exam grades in comparison to the class average

2a) Weekly Online Activity

This activity comprises of page views and participation. Average page views show student activity throughout the course and identifies the trends in the course. Student participation can be seen through page views and participation metrics across all devices. Through my experience, I have found that McGraw-Hill Connect or SIMNET simulation activities tend to have more engagement indicating that these categories are more favored.

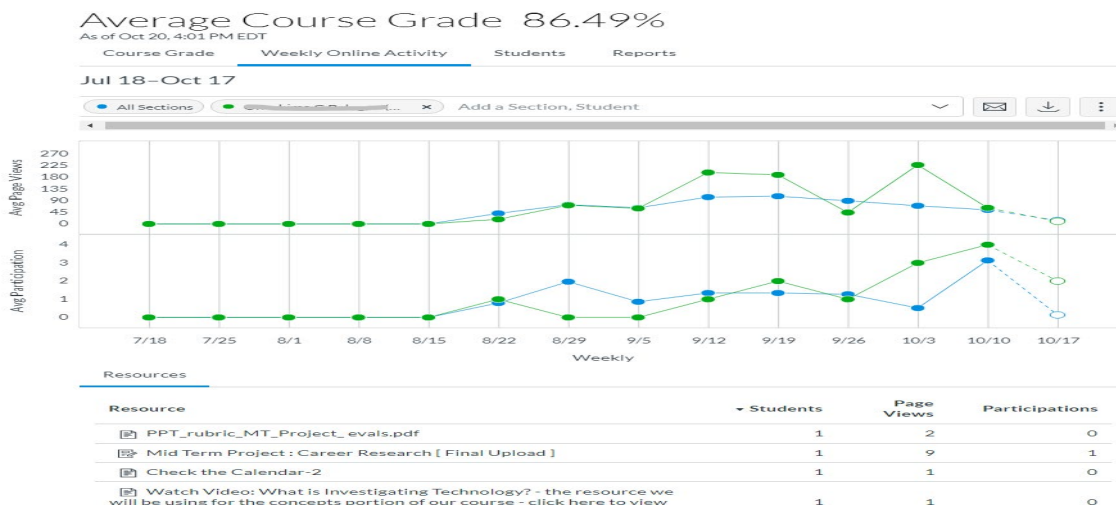


Figure 4. Average Course Grade

2b) View Filter Tabs (Weekly Online Activity)

This tool shows an average number of page views and participation per week in your course. The average page views is the average approximation of student activity across the course. These analytics are defined by particular actions a student will take in the course and can be used to analyze trends in the course. Page views and participation metrics include an aggregate across all devices. The data table below portrays how often two students view and participate in the course. Data displayed as a chart shows dates ranging from 9/19 to 9/25 along with its average number of page views and the average number of participants.

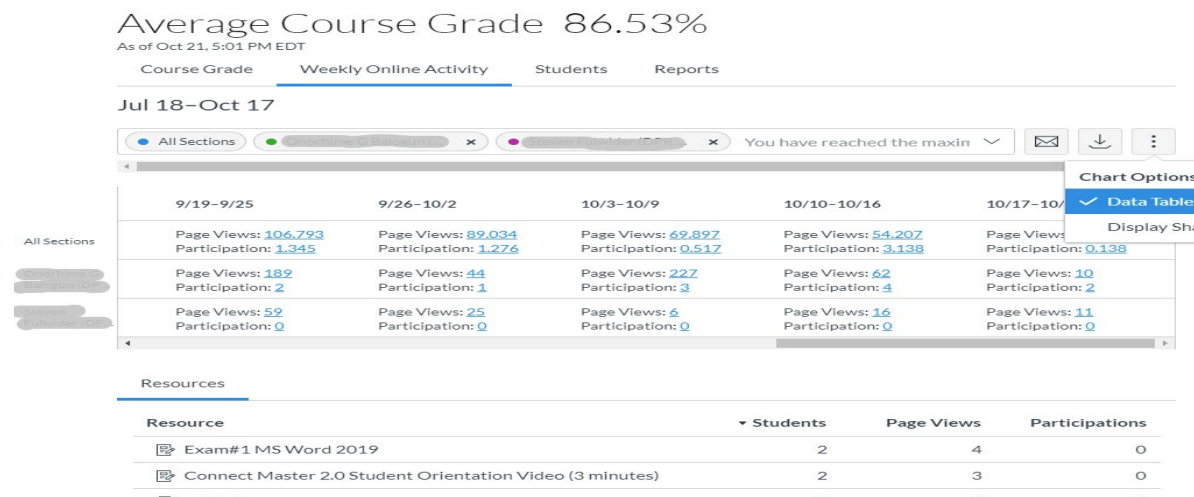


Figure 5. Page View and Participation

3) Communications

The diagram below clearly shows how the students are performing. Although there are exceptions, the chart shows that the more time spent on the course page indicated by the greater page view number, better outcomes are reflected in grades. In other words, I found that the more time the students spend in the course, the higher their involvement is and the higher the grade tends to be. After figuring out who needs attention based on your analytics, you can directly send a message. It could be to the entire class, group, or just an individual student.

Average Course Grade 86.49%

As of Oct 20, 4:01 PM EDT

Course Grade

Weekly Online Activity

Students

Reports

Jul 18–Oct 17

All Sections

Add a Section, Student

Students (29) ▲	Grade	% On Time	Last Participation	Last Page View	Page Views	Participations
<div>OB</div> <div> <div></div> <div></div> </div>	89%	33%	Oct 18, 2021	Oct 19, 2021	880	14
<div></div> <div> <div></div> <div></div> </div>	77%	100%	Oct 16, 2021	Oct 19, 2021	408	18
<div></div> <div> <div></div> <div></div> </div>	97%	100%	Oct 17, 2021	Oct 19, 2021	556	12
<div>DB</div> <div> <div></div> <div></div> </div>	87%	100%	Oct 16, 2021	Oct 19, 2021	261	11
<div></div> <div> <div></div> <div></div> </div>	94%	100%	Oct 14, 2021	Oct 19, 2021	686	12
<div></div> <div> <div></div> <div></div> </div>	94%	100%	Oct 17, 2021	Oct 20, 2021	1,047	12

Figure 6. Student grades

Discussions / Findings

Based on my findings, most of the class students were doing above average. There is a group where the overall grades were less than 70%. I would take a closer look at the students who need attention and would go through the assignments. This assignment I picked is Exam#2 MS PowerPoint 2019 which was one of my initial exams. I wanted to see if there is a problem in terms of my style of teaching or presenting as well as taking a closer look at the question itself. Through item analysis, I can find which questions students tend to fail and evaluate the questions. Then, I revisit and show steps on how to approach and solve the problem. The weekly online activity seems very commendable in terms of page views and participation metrics. In general, when I find a student falling below 70%, I keep a watch list on his/her assignments and immediately intervene via communications (Canvas message, phone call or conference call if needed). So far most of my intervention has been a direct phone call to the student and it has worked well for me. I felt more equivalent to the in class face-to-face communication. This gave me an opportunity for my students and I to clearly address and convey all the actions needed to improve their grades. Please note that this is an on-going class and as the class completes the assignments, the overall class average will tend to change.

In short, through my access to meaningful data I was able to take quick action. The visual charts/figures that were used provided an array of information to see if there were any patterns or interesting information. This practice helped me decide what types of actions needed to be taken, from addressing shortcomings to fixing the problem that interferes with student learning.

Final thoughts

Finally, in addition to student performance, new analytics tools may be used by the instructor to consider the value of his/her course design. New analytics tools help instructors see which resources are being viewed/downloaded, which discussion boards are most active (or inactive), what components of the course are most visited etc. Once an online course has been constructed, it can be useful to “plug and play” and assume that the course will retain the same effectiveness in every semester. Canvas new analytics can help instructors identify redundancies and course elements that are no longer needed/relevant due to lack of student interest. They can also guide instructors to think critically about what seems to be working well in their course (i.e., what are students using, where are they spending the most time in the course etc.).

Summary

In conclusion, I personally found the Canvas new analytics to be useful in the overall approach to student engagement and learning. The information available via a new analytics tool should always be considered along with all other factors impacting student behavior in online learning. This includes varying patterns or styles in students' online behaviors and external factors like personal or societal emergencies that may have affected the move to online learning. Student engagement (as measured by the new analytics tools) can be helpful in identifying struggling students, providing data for student self-reflection, and providing insight into the effectiveness of the instructors' course design. New Analytics aren't considered a substitute when it comes to measuring student success. New analytics can be a meaningful consideration for instructors teaching online and those who invest a lot of time in student success as well as their own professional development.

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Expectations are a two-way street: What students expect from their instructors

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Abstract

A teacher, being a critical stakeholder in teaching and learning, has many opportunities to effectively influence students to excel. Our influence as college instructors cannot be underestimated. We all have a teacher we remember for his/her impact on our lives. The effects of such an instructor are so profound that many success stories are attributed to that particular teacher. This leads us to the question of “what do students want to see in an instructor?” College instructors almost universally publish their expectations for their students, focusing on in-class behavior. Students also have expectations of their instructors. This paper summarizes recent research on student expectations of college instructors along with surveys given to students by the author over eight semesters and describes some of those expectations.

Author Biographical Note

Dr. Rick Clifton is a retired US Army combat arms officer, former middle and high school principal, and international educational consultant. Since 2016, he has been an Adjunct Instructor of Psychology at Delaware County Community College’s Pennock’s Bridge Campus. From 2011-2016, he worked as the Senior Advisor to the Minister of Defense in the Republic of Georgia and, concurrently, as Professor of Psychology at the Georgian National Defense Academy. He spent over two years in Baghdad, Iraq, as Senior Advisor of Combat Operations to the Commanding General of the Iraqi Army, and then as a Professor of Leadership at the Iraqi National Defense University.

He holds a PhD in Psychology specializing in Educational Psychology, a Master of School Administration degree specializing in Educational Leadership and Curriculum & Instruction, a Master of Arts degree in Political Science, and a Bachelor’s degree in Political Science. He is a graduate of the US Army Command and General Staff College, US Army Ranger and Airborne schools, and the United States Department of Defense Strategy Course.

Keywords. Teacher traits, teacher responsibilities, student expectations, student success, student retention.

Word count. 2,549 words total, including references and excluding the title, abstract, author biographical note, and keywords.

Expectations are a two-way street: What students expect from their instructors

Think back for a moment on that one (or more if we’re very fortunate) teacher who made a tremendous impact on us as students and people. Each of us has that teacher whose effect was so profound that we attribute many of our successes (and conversely our failures if the teacher had a negative impact) to that individual. So, what are the traits and responsibilities students expect from their instructors? We are very good, as instructors, at publishing our expectations for our students. We post them in the syllabus, we discuss them on the first day of class, and we remind students throughout the semester what we expect of them. Generally, these expectations are fairly generic and the same for every class: be on time, do the reading, come prepared, ask questions if you do not understand, be respectful of others, etc., etc., etc. Rarely, however, do we ask students what *they* expect from *us*.

It is important to remember that today’s college students are different from students when most of us attended college. This generation is the first purely technological generation (Neiterman & Zaza, 2019). From day one, this cohort of students has had instant access to information and, more significantly, entertainment. We simply cannot apply the same style of teaching methodology that worked when we were students. Expecting students to sit

quietly and attentively, and to take notes without interrupting while we lecture from behind a rostrum at the front of the classroom, is unreasonable. More importantly, it does not help us achieve our goals of student retention and student success.

When I first signed a contract to teach a college course, a friendly, experienced professor recommended *McKeachie's Teaching Tips* to me (Svinicki & McKeachie, 2014). I immediately bought the book and read it from cover to cover. Its chapters on preparing the course, meeting the students on the first day, preparing lectures and exams, facilitating discussions, and all the other key methodologies behind successful college teaching, prepared me for that first course. McKeachie operated on the premise that a college classroom belonged to the instructor, and that students were interchangeable, rotating cogs in the education machine. Instructors were the ones solely responsible for student success. As time progressed and I became more comfortable in the classroom, I started wondering, frankly, why I was the one doing all the work. The simple answer was that *that* was the expectation: we, as the fonts of knowledge, gave the students the information they needed and they absorbed it and regurgitated it for exams, papers, etc. Only recently have we begun to look at the teaching environment as a partnership between instructor and student. McKeachie himself did not discuss our responsibilities to students until the later editions of his book, but even then, he focused more on our ethical responsibilities instead of supporting successful student outcomes (Svinicki & McKeachie, 2014).

What, then, are students' expectations for us to help them succeed? Most of their expectations fall under two categories: academic and personal (Kumar, 2020). Let's start with the academic expectations. Student expectations begin before the class itself does. Students expect instructors to put effort into the material. This includes PowerPoint slides (or other visual aids) that simplify, not obfuscate, the content. They want the instructor's slides to be clear, concise, and simple. Remember that this generation grew up on YouTube, TikTok, Instagram, etc. A few black and white cartoon figures in the margins of the slides do not encourage student interest as we like to believe it does. Students do not expect entertainment from slides; they expect content they can digest. This means slides that clarify and simplify the material.

This material should also contain practical knowledge and not just theory. A consistent question from students is, "How/when am I ever going to use this material outside of class?" Neiterman and Zaza (2019) discuss the expectation that instructors be computer literate and expand that idea to include instructors being able to demonstrate why they are teaching the material that they are. In other words, "What's in it for me?" asks the student.

Students also expect us, as instructors, to be passionate about our subjects. A student answered one of my survey questions this way: "Provide inspiration to students so that they will want to change their minds about the subject." Machin et al. (2015) observed that a teacher's role, according to students, is not just about teaching but also includes inspiring them to change and to develop their personal, social, and professional skills. Hall and Russac (2013) support this idea. They found that students want to be motivated to learn more about a particular subject or topic on their own, and that students want instructors' understanding of their own subjects to be deep and thorough.

Students also expect the syllabus to be thorough. Even though many instructors complain that students do not read the syllabus, the students in my classes have said they expect the syllabus to be complete, meaning that all necessary information for successful completion of the course can be found therein. This includes required and recommended resources, a detailed schedule of what's due when, grading criteria, contact information for the instructor, and, interestingly enough, the instructor's biography. This biography, according to Singham (2005), personalizes instructors and encourages students to engage more personally with them.

Although the above expectations are important, a great deal of the academic student expectations for their instructors involve instructional methodology. As we all know, varied methodologies within the classroom are important and evidence based. Students have an almost instinctive feel for this as well. Umbach and Wawrzynski (2005) found that students report higher levels of engagement and learning when faculty members use active and collaborative learning techniques, engage students in experiences, interact with them, and challenge them academically. McMurtie (2020), as an example, encourages instructors to ditch group projects, calling them

inherently unfair because one or two students do the majority of the work while the entire group receives the same grade. McMurtie (2020) also believes that group projects contain too many logistical problems (e.g., setting up meetings, coordinating schedules, and distributing work to the other members of the group) for college students to negotiate, thereby negating any positive benefits that group projects may have.

So, we all know that varying instructional strategies is important, but what do students want? Sander et al. (2010) found that students prefer interactive lectures. Their least favored teaching practices are formal lectures, role playing, and student presentations. In addition, Sander et al. (2010) found that students chose “teaching skill” followed closely by “approachability” as the most important qualities of a good instructor.

This does not, however, imply that students do not want to be active participants in their own learning. Students have a strong expectation that they will be included in the learning process. Singham (2005) tells us that students believe discussions with their peers, coupled with time and space for reflection and processing, are critical to learning and break up the monotony of lectures. Nowakowski (2010) says that students rely on varied instructional strategies by the instructor to make difficult concepts more understandable, meaningful, and relevant. He also states that students expect instructors to provide references for self-study while encouraging questions and comments from the class.

When it comes to grading, according to Singham (2005), students expect grades to be fair and accurate assessments of their work. They expect feedback, both positive and negative, on their work and they expect their work to be returned in a timely manner. This, of course, can be difficult when the instructor has three sections with thirty students in each one. Nevertheless, it is important (and helpful) to select assessment instruments that make it easier for instructors to accurately and concisely evaluate the students’ performances while providing necessary feedback.

Finally, students expect instructors to listen to their questions and comments and to respond seriously and thoughtfully. They do not want instructors to “fake the answers just to look good” (Singham, 2005, p. 54) and they expect that they will not be embarrassed by instructors for asking “dumb” questions. This finding echoes Tinnish (2019) who claims it is an absolute imperative that faculty be responsive to students’ inquiries and supplement classroom lectures with articles and videos that cover the material in more depth.

The expectation of respect and willingness to go the extra mile takes us to the next category of student expectations: personal relationships. Students are very concerned about developing personal relationships with their instructors. Cox (2017) says that students who believe they have personal connections with their instructors are more successful. Meer (2018) insists that good instructors demonstrate friendliness and approachability coupled with excellent communication skills.

As an example of how this can work in a college classroom, I require students to make and to display name tents for the first two or three weeks of class to help me learn their names. For many students, this comes as a shock and they me that they have never had to do anything like this before, but they like the fact that I call them by their names when they raise their hands. Singham (2005) tells us that students want us to “care not only about academics but also about students as people” (p. 55). This has several meanings, starting with having a strong and sincere desire that students succeed in the classroom as well as outside of it.

Our students obviously expect more of us than simply spouting information that they can feverishly write down and repeat back to us when called upon. They expect us, in a nutshell, to recognize them as people with lives outside of the college. This means not wasting their time, both in and out of class, with busy work or assignments for which they will not receive insightful and considered feedback. It means showing our understanding that they have lives outside of school just as we do (Dennison, 2019). Approximately two-thirds of my students each semester have part-time, and in some cases full-time jobs. Many of these part-time jobs take 25-30 hours a week, so maximizing classroom time is essential to these students. McMurtie explains that many of his students juggle four or more academic classes, each with its own deadlines, assignments, and grading criteria. This leads to cognitive

overload, which can lead to failing a class or, in the worst-case scenario, leaving school entirely.

On the other side of the relationship, students expect us to be human. Do you allow your personality to peek out during your class time? Students say that a sense of humor and the ability to laugh at oneself make an instructor more human, encouraging better relationships. It goes without saying (but I am going to say it anyway) that students who have a personal connection with their instructors outperform those students in the class who do not. So, it is imperative that we, as instructors, show our human side. Students appreciate it when we are open to criticism, show a strong desire to help students during and after class times, take the opportunity to talk to students outside of the classroom, and make students comfortable in the classroom. This develops a sense of mutual trust (Hall & Russac, 2013) that lowers apprehension and encourages students to ask questions and make comments in class.

Finally, let's talk about the elephant in the room – edutainment. Students do expect, fortunately and unfortunately, instructors to entertain them. Neiterman and Zaza (2019) are perfectly clear on this. They say instructors are competing against YouTube, Instagram, and other social media platforms in the classroom. If you do not make the class entertaining, the students will change the channel to something that is. While we are not all comedians or storytellers, we can still guarantee a student's attention by using varied and interesting strategies. If we're not sure what will work for a specific group, what's wrong with asking them in advance?

In conclusion, Svinicki and McKeachie (2014) summarize a student's expectations for faculty very well in the most recent edition of *McKeachie's Teaching Tips*. Instructors can have a broad range of lasting effects on student lives by encouraging learning through well-designed and well-presented instructional materials and activities. The authors also demand that instructors show respect for students as students and as human beings. Students have the right to expect honest and fair evaluations.

Lastly, Nola (2019) proposes that teachers in the 21st century are not just teachers. They fill many roles that reflect student expectations:

The Controller – in complete charge of the class and student behavior.

The Prompter – encouraging students to participate in class as well as in applying for internships, etc.

The Resource – ever ready to provide help when required.

The Assessor – evaluating student performance and providing quality feedback and suggestions for improvement.

The Organizer – preparing materials, lectures, and strategies to benefit all students.

The Tutor – coaching students and providing advice, guidance, mentorship, and a role model.

McKeachie's Teaching Tips ends with this gem: "It is a great privilege to be a teacher. But all great privileges carry great responsibilities as well. Many of those responsibilities are subtle, thrust upon us by the expectations of others rather than sought by us" (Svinicki & McKeachie, 2014, p. 327). It is time to make expectations a two-way street. We are already very good at expressing our own. Let's listen to our students' expectations of us. This will go a long way towards creating a more successful student academically and developmentally. As always, Einstein brings the whole discussion to a single point: "I never teach my pupils. I only attempt to provide the conditions in which they can learn." It is high time we shift from a teacher-centric education system to one where we work in partnership with our students (Orlando, 2013). That starts with listening.

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Making College Reading Experiential

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Abstract

The goal of REA 050 is to develop stronger college-level readers by improving their ability to understand and retain college-level material. We can accomplish this by deepening and broadening reading instruction to include experiential learning and other opportunities for engagement in conjunction with the teaching of more technical skills that nurture reading comprehension, identification of language and structural cues, critical thinking, and strategic reading. Guest speakers and panels, social-justice oriented approaches, and the incorporation of traditional and social media can make college reading more experiential, likely increasing reading comprehension and retention.

Author Biographical Note

Dr. Stephen Flemming is a veteran public school teacher and adjunct reading instructor here at Delaware County Community College. He received his bachelor's degree in elementary and early childhood education from Temple University, a master's in reading education from Cabrini College with reading specialist certification, and his Ed.D. from Drexel University in educational leadership and administration. Earlier this year, *English Journal*, a peer-reviewed journal of the National Council for Teachers of English, published his article titled, *Advocating for Social Justice through Script-Writing*.

Keywords: Experiential learning, reading comprehension,

Making College Reading Experiential

For Reading II, REA 050, our primary text is Steve Lopez's *The Soloist*. It is a novel about a white columnist for the Los Angeles Times who happens upon a homeless Black man named Nathaniel Anthony Ayers playing classical music on a violin with just two strings. Nathaniel has also been diagnosed with schizophrenia. During their brief encounter, Ayers mentions that he once attended The Julliard School in New York, the prestigious arts school which self-describes as "a world leader in performing arts education." The novel, and subsequent movie, carries readers through the characters' peaks and valleys as these two men navigate the tests and triumphs of unfamiliar terrain, each other. The world has an up-close and personal view of the action through Lopez's first-person accounts in his columns for the LA Times and in *The Soloist*. While I discuss strategies and suggestions for making college reading experiential using *The Soloist*, one may use any text to create an experience for students.

The description and goal of Reading II is for students to "improve their ability to understand and retain the material they read in college. Emphasis in the course is on reading comprehension, language clues, structural clues, critical thinking, and strategic reading." January 2022 will mark my 5th year here as an adjunct in the Reading Department here at the college. I am currently in my 15th year as a public school educator, primarily as an English/Language Arts teacher at the elementary and high school levels. In my experience, better and increased engagement in reading includes the depth and breadth of reading experiences in addition to the very necessary skills of reading for comprehension, identifying language and structural cues, critical thinking, and strategic reading.

For the purpose of better and increased reading engagement, I strive to make the REA 050 classroom, whether in-person or online, experiential. The classroom culture and experiences I seek to create are rooted in the exploration of the themes in *The Soloist*: race, homelessness, classical music, and mental health.

To that end, I have included such experiences as interacting with mental health and homeless experts in panel-style discussions. A psychologist, a psychiatrist, and a social worker who work with those experiencing

homelessness, have joined us to answer questions and to provide us with new learning. We have also incorporated the use of traditional and social media into the course, viewing documentaries, listening to podcasts, and making use of Twitter and Instagram to post and repost theme-related articles and videos. We have also watched *The Soloist* movie and juxtaposed the ways in which some of the previously mentioned themes were explored in the book versus the movie.

Narrowing in on the themes of race and classical music, I have incorporated the works of Black Violin into the course. They are a Black male duo who creatively combine classical music with hip-hop, bridging two worlds that may not have otherwise connected.

Our experiences have also included taking action by drafting emails to legislators and reflecting on ways in which we could possibly advocate on these or other issues of importance to us, thus embracing a more social justice-oriented approach. I sought to engage in all of these while also maintaining more traditional andragogical approaches. Students must still complete an end-of-term research paper, their online MyLab work, and must read the novel in its entirety, while responding to chapter questions with references to the text each week. There are still mini-writing assignments, class discussions, teacher demonstrations, other student performance tasks, my feedback and more. Anecdotally, this experiential approach to reading instruction seems effective. Student comments are shared as written. One wrote in an email, “I really enjoyed your class and will miss it!! You made it very fun and not just so much a reading class.” On their course evaluation another wrote, “the thing i like about the this course was how we sometime take a trip back to history relating the books we reading.” After one semester, a former student sent this follow-up email:

Hi Professor Flemming!

I know we are no longer in session together, but I wanted to give you an update on what Governor Wolf had to say to my email!

Thank you for an awesome semester. It was very eye opening to me and I feel more educated and willing to help our homeless population!

The goal of REA 050 is to develop stronger college-level readers of the students we serve. We can accomplish this by deepening and broadening reading instruction to include experiential learning and other opportunities for engagement in conjunction with the teaching of more technical skills that nurture reading comprehension, identification of language and structural cues, critical thinking, and strategic reading.

The Role of Student Self-Efficacy in Engagement & Motivation in Online Learning Classes

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COVID-19 radically transformed the lives of students, teachers, parents, and families. Although teachers are highly qualified to teach face-to-face, most teachers are not confident teaching online. Therefore, lives were turned upside down during the pandemic (Abou-Khalil et al., 2021). Still other teachers had to train for the first time on a learning management system. At the same time, teachers learned to teach online while trying to keep students engaged in an online environment (E Terrazas-Arellanes et al., 2016).

However, engagement is not only the teacher's responsibility, but students have a part to play in their self-efficacy (Latip, 2021). This concept started many years ago, in 1930, with *The Little Engine that Could* (Piper, 2020). If you think you can, you can and if you think you can't, you can't (Piper, 2020). In other words, students who believe in themselves are ready for the challenge and will achieve more. Students have the ability to meet any challenge he or she faces if students are motivated (McNeece, 2019). If students believe they can be successful, then they will be more motivated to be engaged. Therefore, students who have had several successions of success engaged with a task will believe he or she can complete similar tasks successfully. Consequently, when success is achieved students are more motivated to be engaged, thus skills increase (Schunk, 2019).

Likewise, when students see other students with the same background being successful with an activity, task, or challenge then students feel like they can be as successful (Schunk, 2019). Thus, students are more willing to be engaged in the classroom (Schunk, 2019). Self-efficacy is the key to a student completing activities, tasks, and challenges online. However, students who do not understand how to use the technology will normally have low self-efficacy and may give up on activities, tasks, and challenges online (Latip, 2021). Accordingly, are teachers creating online classes to motivate students to engage (Sugden et al., 2021)? What impact does student engagement have on students' grades in an online course?

Teachers are charged with creating tasks to keep students engaged. It was assumed that student engagement is related to higher grades, and student completion. Students were emotionally engaged when they had choices (Jia et al., 2021). Both high performing and low performing students enjoyed collaboration tasks because they were able to share ideas with each other, put their thoughts together and develop a new concept (Jia et al., 2021). When students were highly engaged in activities they earned higher grades, but more importantly they were motivated to achieve and had greater success. In a passive learning style students are not engaging; therefore, students learn less (Jia et al., 2021). Likewise, when students were given worksheets to populate, and received little or no feedback, students were not engaged and learned less. It is a dual responsibility of teachers and students to have self-efficacy, which produces engagement, motivation, and higher grades (Jia et al., 2021; Parson et al., 2018). Student engagement in an online learning environment reduces the feeling of isolation for students, increases students' desire to learn, increases their satisfaction and academic achievement (Abou-Khalil et al., 2021; Parson et al., 2018).

Self-efficacy increases in students when they have success after success. Therefore, goals set by the teacher over the ability of students do not increase self-efficacy. Likewise, goals set by the teacher less than the ability of students does not increase self-efficacy. Therefore, students need scaffolding, steps to lead them to accomplish their activities, tasks, and challenges. Students need steps to assist them when they cannot figure out a challenge. Encouraging students to show each other a task, also known as peer modeling, is helpful to build self-efficacy (Parson et al., 2018). Self-efficacy must be increased for students to be motivated to be engaged to learn new skills (Parson et al., 2018).

There are several types of online engagement, student-to-student, student-to-teacher, and student-to-content (Abou-Khalil et al., 2021). In an asynchronous class, students may share videos, podcasts, or write their response to

a specific question or case study. Freedom of choice is crucial in inviting students to participate in class (Jia et al., 2021; James, 2018). When students have control over their outcome, they are more engaged. It has been shown that adding multimedia to an online class can significantly increase student satisfaction, motivation, and engagement, thus increasing self-efficacy (Abou-Khalil et al., 2021; Sugden et al., 2021). Using web conferencing, such as Zoom, has been shown to increase students' interest in the class and sense of community (Sugden et al., 2021). Interactive games, such as Kahoot and Concentration, and real-world experiences increase student engagement (Sugden et al., 2021). Student engagement is fostered by the teacher (Chiu, 2021). Teachers must be trained to produce organized, clear content, with clear due dates. In addition, to help students feel empowered, independent, and engaged teachers should have a space online, such as Peer-to-Peer Discussions, to allow students to share and help each other (Chiu, 2021). Finally, adding humor that is related to the content helps with student engagement online (Erdoğan & Çakıroğlu, 2021).

Online learning is not a new concept; however, some teachers never taught online and had to develop a new teaching delivery skill immediately (E Terrazas-Arellanes et al., 2016; Abou-Khalil et al., 2021). Likewise, some students never received instruction in an online environment and did not know what to expect. Some students did not understand the technology used for online classes. Knowing how to use technology helps to build self-efficacy. Thus, students will have the ability to access online learning and complete the activities, tasks, and challenges. Students who do not understand technology in an online environment will have difficulty with accessing the material for the online class (Abou-Khalil et al., 2021). Hence, technology deficient students will demonstrate low self-efficacy. Self-efficacy is the belief that one has the knowledge and ability to successfully complete a task (Schunk, 2019). All students need to demonstrate self-efficacy to be successful in and out of the classroom. Self-efficacy activates students to be motivated to be engaged to complete the activities, tasks, and challenges. Students who demonstrate a high level of self-efficacy are more willing to take on challenges and complete them successfully. Therefore, students who demonstrate high self-efficacy are resilient, are self-fulfilled and will have better outcomes.

Teaching Introduction to Technology and keeping students engaged in the lesson online is not easy, but it is doable. These strategies can be used online for face-to-face. First, create a student peer-to-peer chat. This is the place where students can ask questions and receive help from their peers.

Second, have students create a research-based interactive PowerPoint slideshow with a partner on the effects of artificial intelligence on current lifestyles. The students must show both the positive and negative sides of the subject. In addition, the students must post the interactive PowerPoint slideshow on YouTube and each team must comment if they agree or disagree, why or why not on all the other teams in Canvas. Each reply must be two paragraphs or ten sentences. All grades will be separate, and each student will write in Canvas what they contributed to the process.

Third, students view video Ethics in Technology. Students will be put in groups by their birth month. Two students to each group, if possible. Each group will be given a case study and the students will have to apply ethical best practices for the technology. Each group will have 15-minutes to discuss and develop what they would apply and why. In addition, the students will explain how their decision connects to the video they watched.

Overall, I run a flipped classroom, which means if we are face-to-face students will complete their homework in class where they can get help from me and their peers. Videos and reading they can complete at home. This teaching strategy helps students understand the material, be more prepared for class, and not be embarrassed to ask for help. This is a win-win for all.

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Teaching Philosophy and Practices to Support Student Success Daily Practice and COVID-19 Enhancements

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Author Biographical Note

Debra L. Lawrence has over 40 years in the field of early care and education. She has presented workshops and seminars at the international, national, state, and local level. Her service to the profession includes leadership positions in Colorado as a Governor appointed member of the Early Childhood School Readiness Legislative Committee and at the national level by serving a four-year term on the National Association for the Education of Young Children's governing board and continuing to serve the organization through the Board Alumni committee. She is currently the President of the International Play Association, USA affiliate.

Debra is a certified play coach, and a trauma informed certified trainer.

In Pennsylvania, Debra was the Director of the Southeast Regional Key located in Philadelphia, PA. Each regional key is the hub of operations for Pennsylvania's Quality Rating and Improvement System, Keystone STARS.

She is the author of How Public Investment Contributes to High Quality Early Childhood Programs, Lessons from Pennsylvania and is a contributing author to Learning from Head Start. She has a chapter on Bronfenbrenner and Play in the upcoming publication Scholarly Snapshots. She is the recipient of numerous awards. Most recently, she was recognized as Recipient, National Association for the Education of Young Children, Ed Klugman Lifetime Achievement Award as an Advocate for Play.

Debra holds a bachelor's degree in Social Research, Social Structure, and Social Change, a master's degree in Early Childhood Education, and a PhD in Early Childhood Education.

Introduction

As a new full-time tenure track applicant, I arrived on the Delaware County Community College Campus filled with hope and possibilities. I was looking for a faculty position in a college that aligned with my teaching philosophy and practices. A college that believed in student success, a welcoming campus, a friendly environment, and a place where students felt valued and appreciated. A campus that did not just make statements about student success but backed up these statements with an array of easily accessible resources and supports. I was fortunate to be offered a position in an institution that met and exceeded these practices.

Daily Practice

My teaching philosophy includes a blend of theoretical foundations. These include Jean Piaget's Constructivist Theory, Bronfenbrenner's Ecological Systems Theory, and Vygotsky's Socio-Cultural Theory. In line with these theoretical foundations, I embed the following beliefs and values into my classroom:

- All learners come to the learning environment with diverse perspectives, background knowledge, communication strategies, cultural backgrounds, learning styles, and work ethic. This diversity brings richness to the learning environment.
- Each learner must understand themselves before they can understand others and effectively co-construct knowledge in a collaborative learning environment.
- Future teachers must think and reflect deeply about the discussed topics and engage in activities that

build their intrapersonal knowledge and interpersonal skills.

- The most conducive learning environment is where the learner feels physically and emotionally safe. Mutual respect helps to support an emotionally safe environment, and this is achieved by accepting others' thoughts and opinions, listening carefully, and being open to new thoughts and ideas.

Both Vygotsky and Bronfenbrenner discuss the importance of relationships. Relationships are the heart of every classroom and the key to student success. Students must feel that you are invested in their success and are willing and able to help them succeed. As a professor, I develop an inclusive and supportive community of learners interested in and engaged in the coursework. I pick up on student interests, identify strengths and areas for growth, and challenge them to reach their potential, all in an environment infused with support. Another effective teaching technique is using what Vygotsky describes as scaffolding and facilitation versus more lecture-based teaching methods.

Just as Vygotsky states,

"The teacher must adopt the role of facilitator, not content provider" - Vygotsky, 1930

Vygotsky's theory uses scaffolding to support learning. Recognizing that everyone may be on a different level of learning particular concepts, scaffolding supports each individual or the group as a whole to grasp concepts (McLeod, 2019). To implement this Vygotskian principle, I use a technique to assess prior student knowledge. The name of this technique is a KWL Chart.

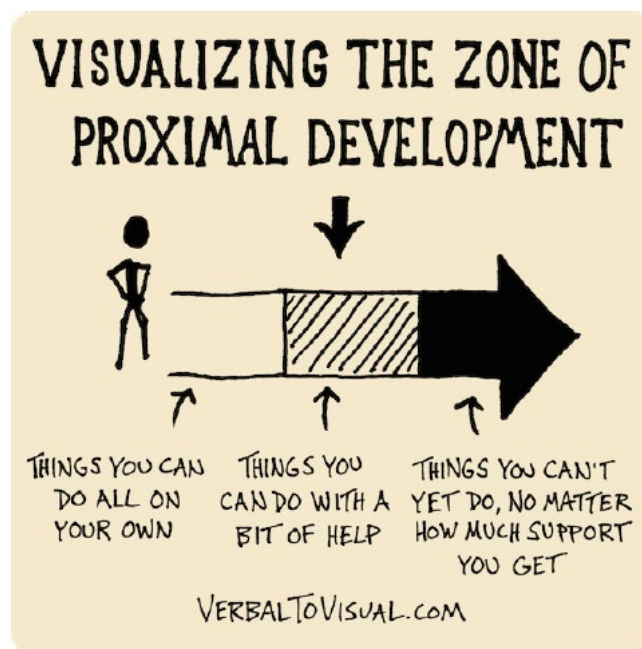
What do students know about this? (Prior Learning)	As a student, what am I wondering about this? Or, as a professor, how can I build on what they already know?	What do students know at the end of the lesson? Or as a professor, what teaching strategies did I use, and what was the effectiveness of these strategies in students mastering the course competency?
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The KWL Chart is a formative assessment that aids me in guiding students from where they are on a course competency and developing strategies to scaffold the individual or whole class to master the course competency.

Vygotsky coined a definition of instructional scaffolding that focused on teacher practices. He defined this as **'the role of teachers and others in supporting the learner's development and providing support structures to get to that next stage or level'** (Raymond, 2000)

Scaffolding instruction leads to another essential aspect of Vygotsky's theory known as the Zone of Proximal Development (ZPD). ZPD is what the student can do without assistance or support versus what the student can do with a professor who incorporates teaching strategies that scaffold learning. Scaffolding does not provide the answer to a question or dilemma but instead leads the student to the solution through questions, resources, or other tools. Using this teaching technique assists students in achieving a higher level of learning and understanding.

In the college environment, the hope is that students are gaining the prior knowledge needed to be successful in future courses so that the ZPD works effectively and what they need to learn is easily scaffolded. However, professors regularly face a challenge that not every student may have the prior knowledge required to succeed in a particular course. Using the KWL approach allows me to gauge where individuals are or where the group is and then remedy the situation by backfilling students' prior knowledge.



Another effective teaching technique requires the instructor to translate the course content into usable information that students can relate to from their own experiences. This strategy includes teaching the theory or concept, then using a current event or story to help students connect the content or theory to what it looks like in practice. Finally, providing assignments to future teachers that are challenging yet achievable pushes them to reach their potential.

Project-Based Learning

The early childhood education degree prepares future teachers to teach infants through 4th graders. Though this is a wide age span, the teaching techniques used within the Early Childhood Education degree apply regardless of age or grade level. Considering this age span and recognizing that quizzes and tests do not measure what a student knows and can apply, I incorporate Piaget's Theory of active versus passive learning while building on a student's prior knowledge. This active learning strategy includes project-based formative and summative assessments versus tests or quizzes to assess students' mastery of the course competencies. For the project-based summative evaluations and some of the project-based formative evaluations, I have created Canvas Studio videos that outline the project-based assignments' expectations. For all projects, the challenge is to provide the expectations without being prescriptive in how students complete the work. For example, many students want to know how many pages or PowerPoint slides are required. Instead of providing a prescriptive answer, I foster their critical thinking skills by responding to the students to provide detailed and specific responses to each prompt.

Project-based assessments allow students to use critical thinking and creativity to demonstrate their mastery of course competencies. The goal is to master course competencies, not fail the course. When grading, I provide feedback on ways to improve the assignment. In some instances, students may have the opportunity to resubmit a particular project for a higher grade. In other cases, I provide feedback to improve future assignments and give comments to deepen student learning.

Modifying Teaching Practices from Face-to-Face Courses to the Online Environment

I enjoy face-to-face courses with active learning experiences to help students master the course

competencies. My practice includes a question that students answer in small groups, a mini-lecture to build on their responses, and an active learning experience to help them apply the course competency or content for that day's lecture. I duplicate the face-to-face active learning strategies in the online environment by creating discussions that replace my questions at the beginning of a face-to-face class. This approach builds on Vygotsky's theory that social engagement and interaction assist in learning. Just like in the face-to-face environment, discussions create opportunities to hear diverse perspectives and develop connections with their peers in the online environment.

COVID-19 Enhancements

The COVID-19 Pandemic created challenges and opportunities for engagement with students. Recognizing that students who had been in face-to-face classes needed to transition to a fully online course, I implemented a couple of strategies to provide additional supports. First, I created and continued to supply weekly Zoom intros, mini-lectures, and assignment overviews for each class. These weekly videos provide students with an introduction of the week's expectations, a mini-lecture to deepen their knowledge of the week's competencies, and a review of each assignment.

Second, I held an optional weekly Zoom check-in for each course. All Zoom check-ins were recorded and uploaded into each week's module for working students. If students could not participate in the Zoom check-in, I invited them to submit questions to me by Tuesday evening and answered the questions on the Zoom check-in. The weekly check-ins helped students feel connected to me as their professor, even though they participated in an asynchronous course. Additionally, these supports were beneficial to students and reduced the number of emails I received from students asking questions.

Each professor has an array of teaching strategies to help students be successful. In this article, I have shared a few of mine. I hope that professors from all disciplines can come together and share their teaching techniques to harness the power of our experiences and strengthen our practice as faculty.

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Goldfish, Horns on Skulls, and Attention Spans: Using the SIFT Method to Determine the Credibility of Online Sources

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Abstract

Critical thinking is a valued behavior and is a foundational premise of the liberal arts and sciences. It appears that critical thinking has met its foe in the form of misinformation and disinformation that quickly spreads online. More and varied tools are needed to help students learn how to wade through the immense amount of information pouring across their screens. The author addresses two challenges in teaching students about information literacy: the shortcomings of critical thinking as a primary information literacy tool and the finite human attention span. These challenges lay the foundation for addressing how Michael Caulfield's SIFT method challenges traditional thinking about the role of critical thinking in determining the credibility of sources by focusing less on critical thinking and more on attention spans.

Keywords: critical thinking, source credibility, information literacy, SIFT

Word count: 3,496

Author Biographical Note

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Goldfish, Horns on Skulls, and Attention Spans: Using the SIFT Method to Determine the Credibility of Online Sources

On June 13, 2019, *Newsweek* published a story with a bold headline claim: "Humans Have Started Growing Spikes in the Back of Their Skulls Because We Use Smartphones So Much" (Gander, 2019). In subsequent days, dozens of other news outlet picked up the story including *The Washington Post* and *Fortune*. The *Washington Post* headline was particularly catchy in its description of the phenomenon: "'Horns' Are Growing on Young People's Skulls. Phone Use Is to Blame, Research Suggests" (Stanley-Becker, 2019). Naturally, many were alarmed at the prospect of such horn growth and thus, the story quickly went viral. There were, however, some who found the claim dubious, at best. Four days after the publication of the *Washington Post* article, paleoanthropologist Hawks (2019) encouraged people not to be swayed by "stories that seem too weird to be true" (para. 1). Within five days, the fact-checking site Snopes posted an "unproven" rating about the claim (Palma, 2019, para. 1) and PBS published a lengthy explanation about why the claim is unproven (Akpan, 2019). Despite the existence of these debunking explanations, the original article published by *Newsweek*, for example, has not been updated with any disclaimer about the credibility of the claim.

The ease of sharing information with the click or tap of a button makes the credibility of stories like this one fall prey to short attention spans fueled by the instant gratification of sharing an intriguing story. Stopping to consider the veracity of the claim interrupts the instantaneous nature of social media. Academics are trained to test the veracity of claims and likewise to teach their students to do the same. Critical thinking is a valued behavior and is a foundational premise of the liberal arts and sciences. It appears that critical thinking has met its foe in the form of misinformation/disinformation that quickly spreads online. Simply put, more and varied tools are needed to help students learn how to wade through the immense amount of information pouring across their screens. What

follows is a description of two challenges in teaching students about information literacy. They lay the foundation for addressing how the SIFT method challenges traditional thinking about the role of critical thinking in determining the credibility of sources by focusing less on critical thinking and more on attention spans.

Challenges of Critical Thinking as a Primary Information Literacy Tool

The first challenge of note are the shortcomings of critical thinking as a primary information literacy tool. The Foundation for Critical Thinking (n.d.) defines critical thinking as being:

...that mode of thinking — about any subject, content, or problem — in which the thinker improves the quality of his or her thinking by skillfully analyzing, assessing, and reconstructing it. Critical thinking is self-directed, self-disciplined, self-monitored, and self-corrective thinking. It presupposes assent to rigorous standards of excellence and mindful command of their use. (para. 2)

The skillful analysis and assessment of disinformation memes, for example, proves to be a difficult chore given just how quickly they spread. One might presuppose that mindful command of rigorous standards of excellence stand little chance against the viral nature of social media. Despite the best efforts of educators to help students with identifying credible sources, many students do not demonstrate the aforementioned critical thinking skills when selecting sources. In their literature review, Wineberg and McGrew (2017) note several reasons why this may be the case including using an online source based on its relevance to the search, its appearance, and the ease of navigating a site (p. 3). Of course, students' behavior in this manner is not meant to push aside critical thinking altogether. However, critical thinking about the challenge faced by students discerning whether horns are growing on the back of peoples' heads calls upon academics to face the shortcomings of the time involved in thinking critically about an enticing headline.

Thus, a second challenge of note is the finite nature of the human attention span. Social media companies and their accompanying algorithms highlight just how their users' attention spans are a highly valued commodity. Warzel (2021) aptly explains:

People learn to think critically by focusing on something and contemplating it deeply—to follow the information's logic and the inconsistencies. That natural human mind-set is a liability in an attention economy. It allows grifters, conspiracy theorists, trolls and savvy attention hijackers to take advantage of us and steal our focus. (para. 8)

Within the context of what is known as the attention economy, Paasonen (2016) offers: "...the aspiration to capture attention has become increasingly manifest as an essential component of value production...[A]ttention has grown into a scarce resource in a media environment characterized by the excess of available content" (para. 11). The constant push and pull of what content to pay attention to encourages bypassing the use of critical thinking skills.

A popular critical thinking tool used to teach information literacy to students includes using checklists such as the CRAAP test. This asks students to test the credibility of a source by asking questions about its currency, relevance, authority, accuracy, and purpose. While these questions are valuable, they take time to process and are not easily remembered in the moment when looking at a source. Caulfield notes, "The goal of disinformation is to capture attention, and critical thinking is deep attention" (qtd. in Warzel, 2021, para. 6). Sorting through the credibility of online sources saps energy from one's ability to pay deep attention. In essence, the CRAAP test and others like it require a level of deep attention that most will bypass in lieu of convenience and/or attractiveness of ideas—whether credible or not, among other reasons. Wisdom calls upon educators to determine when it's best to direct students to use a checklist method and when another option might be better such as the SIFT method.

The SIFT Method

Based on the information literacy research of Wineberg and McGrew (2017), Caulfield developed the SIFT

moves by asking, in part, “What is the smallest set of skills that we can give people that prepares them to engage as active citizens on the web?” (Oremus, 2020, para. 11). He is not shunning the importance of critical thinking, but instead he is proposing that students be given a tool that can help prevent them from either ignoring the credibility of a source altogether or spending way too much time identifying whether the source is credible. The SIFT moves are a way to determine if a source is credible—particularly online media—without engaging in deep attention to make that determination.

He found the approach fact-checkers take to be a particularly useful tool. Fact checkers routinely leave a site and look elsewhere to verify in a few easy steps whether the source is worth their time and attention. Wineberg and McGrew (2017) describe this as the difference between reading vertically by “staying within a website to evaluate its reliability” versus fact checkers who “read laterally, leaving a site after a quick scan and opening up new browser tabs in order to judge the credibility of the original site” (p. 1). Technology journalist Oremus (2020) explains, “The key is, when you run across a new claim about a topic like coronavirus on social media, don’t try to evaluate it on its own terms. It’s both faster and more effective to evaluate it by cross-referencing — that is, looking elsewhere on the web for confirmation or debunkings” (para. 8). Wineberg and McGrew (2018) offer this encouragement: “So, take a lesson from fact checkers: Don’t let your eyes deceive you. When you land on a site offering ‘nonpartisan’ information, forget about the fancy logo, ignore the .org designation, and for heaven’s sake, don’t put your faith in the About page. Take a minute to open up a new tab (better still, several). Search the organization’s name along with a canny keyword like ‘funding’ or ‘credibility’” (para. 13). Once the SIFT moves are mastered, Caulfield believes that a student (or anyone else for that matter) can figure out within 30 seconds or so whether to pay attention to the source or not.

Before proceeding with an explanation of each of the SIFT moves, it is important to note what the method is not: “The goal of SIFT isn’t to be the arbiter of truth but to instill a reflex that asks if something is worth one’s time and attention and to turn away if not” (Warzel 2021, para. 13). Additionally, Warzel (2021) offers, “SIFT is not an antidote to misinformation” (para. 13). Poor media literacy is going to be pervasive as long as there are online actors who are committed to spreading misinformation and disinformation. Warzel (2021) rightly concludes that a mnemonic device is not going to deter the publishing of such information, but “...SIFT may add a bit of friction into the system” (para. 13). Additionally, SIFT is not intended for deep research such as in-depth research papers. It can be used as a first step to make faster decisions about whether to consider a source worthy of attention for deeper research. For example, quickly determining the credibility of the *Newsweek* story about horns would save a student valuable time in accepting the source as credible and thus, wasting time pursuing an unfounded claim as a research topic.

First SIFT Move: Stop

The first move of SIFT is perhaps the one behavior that when avoided leads to misinformation and disinformation going viral: Stop. Caulfield (n.d.) asks, “When you feel strong emotion, surprise, or just an irrepressible urge to share something... stop” (para. 5). Arguably, this might be the most difficult move because it requires the user to resist the urge to respond out of emotion. This is particularly noteworthy because of the “sticky attractiveness” of stories that have already gone viral and the propensity to want to be a part of that experience. Paasonen (2016) reflects on the idea of “sticky attractions” online: “The more spreadable media circulates and the more people comment on it, the higher the affective value it may accrue” (para. 15). Thus, users are likely to be guided by the affective value and click share rather than to stop.

The following example illustrates the simplicity of the Stop SIFT move. While looking for information about how social media impacts attention spans, a student turns to Google as a research tool. The search result returns dozens of articles claiming that attention spans have dropped over the last several years. In fact, goldfish now have a longer attention span than humans (McSpadden, 2015). A customer insights study by Microsoft Canada is cited across dozens of articles in support of the claim. One such article is a guest editorial in the *Orlando Sentinel* (Ebstein, 2021). A student coming across this source would first stop before deciding if the story is worthy of attention. By stopping before proceeding with an automatic decision about the source’s usefulness, that student is

overriding the inclination to give into the “sticky attractiveness” of the article and perhaps make a poor judgement about its credibility. Once the student has stopped, the remaining moves of SIFT provide the needed information about whether the source is worthy of attention.

Second SIFT Move: Investigate the Source

The second move of SIFT is Investigate the Source. The focus of this move is for a student to know what they’re reading before they read it. This is based on the premise that knowing the expertise of the source before it is read will help determine if attention needs to be given to the source at all. Caulfield offers two ways quickly to investigate the source: hover in Twitter and use Wikipedia. Hover involves hovering over a user’s name to see a description about them. A blue check mark next to a name typically means that the account has been verified by Twitter, but that does not automatically make the source credible. For example, someone may tweet about the scarcity of Coronavirus vaccinations in their area. Hovering over their name reveals that the person is retired and volunteers at a food bank. They might be correct about a shortage of vaccinations, but their profile information does not necessarily make them a credible expert about such a shortage. The second way to investigate a source is to use Wikipedia. Some academics might balk at the idea of using Wikipedia to investigate a source further, but the goal of SIFT is not to do a deep dive into research. Instead, the goal is to determine if a source is worthy of one’s attention and that does not typically require concerning oneself with exploring primary sources, for example. To learn about Wikipedia’s usefulness as a SIFT move, let us return to the research about the human attention span.

Investigating the source of the guest editorial in the *Orlando Sentinel* would require the student to remove all the information after the domain name of the web address for the article and typing Wikipedia after it. In this case, the search term would be “<https://www.orlandosentinel.com> Wikipedia”. The first result is for the *Orlando Sentinel*’s Wikipedia page. Here the student learns that the newspaper has been in existence since 1876 and is the leading newspaper for Orlando. This, among other information on the page about its publishing history, gives them relative assurance that it is a credible news organization. Returning to the editorial, the student’s next task would be to determine whether the author is a credible voice about attention spans. The author is listed as Jill Ebstein with a reference to insidesources.com. A search for “Jill Ebstein insidesources.com” returns a top search result to a page on insidesources.com about Jill Ebstein. Here, the student learns that Ebstein is the founder of a marketing firm. Given that attention spans play a role in decisions that marketers make, a student might consider Ebstein’s commentary worthy of further attention.

Third SIFT Move: Find Better Coverage

The third move of SIFT is Find Better Coverage. In this move, the focus considers whether there is other available coverage of the topic. One important part of the move is to use credible fact checking sites such as Snopes and Politifact. Returning to the attention spans of goldfish, one way of finding other available coverage of the topic is to do a simple Google search. In this case, the phrase “goldfish and human attention spans” is a good one to use as it draws upon the key terms used in the *Sentinel* article. A variety of sources are returned—some of which support the claim and others of which do not. At this point, it becomes obvious that the claim should not be readily accepted without further investigation.

Fourth SIFT Move: Trace Claims, Quotes, and Media to Original Source

The fourth move of SIFT is Trace Claims, Quotes, and Media to the Original Source. This move is perhaps the most time consuming of the moves because it requires taking a closer look at the source. This move is necessary when the user needs to determine the veracity of the claim after deciding that it is worthy of attention given the result of investigating the source. The goal is to ensure that the information presented in the source can be traced back to the original source (i.e., the primary source as opposed to the secondary source). This means, among other tasks, checking the credibility of people who are quoted in the source. A quick way to get the tracing started is to look for hyperlinks in the source that may direct the reader to the original source. If the source lacks hyperlinks, performing a Google search on key terms in the source will assist with locating original sources.

In the case of the *Sentinel* article, a reference is made to the Microsoft study, but no hyperlink to the study is given. A Google search for the study is needed to locate the primary source. Using the find search tool to search on “attention”, page 6 in the study displays a graphic showing that the average attention span was 12 seconds in 2000 and 8 seconds in 2013. It also notes that the average attention span of goldfish is 9 seconds. Here is where the claim that the attention span of a human is less than a goldfish’s attention span originated. A source notation at the bottom of the graphic indicates that the statistics are from Statistics Brain. In other words, the claim being made by dozens of other articles based on the Microsoft study is not actually data from the Microsoft study itself. A search for the primary Statistics Brain source yields no results other than to discover that the only way to track down the information is behind a paywall. Interestingly enough, while trying to locate the primary Statistics Brain source, a Google Scholar search turned up a compilation of articles about the claim and how it is unsubstantiated (University of Wisconsin Psychology Department, n.d.). Several other debunking articles take on the claim that goldfish have short attention spans in the first place. At this point, it is clear that Ebstein’s article is not one that should be shared as tracing the claim back to the original source revealed problems with the information being used to make the claim.

The four moves in the SIFT approach provide a way for students to learn how to test the credibility of an online source in an efficient and timely manner. Its emphasis on “Stop” as the first move highlights the importance of managing emotion about a source. It reminds users not to short circuit checking the credibility of a source because of some enticing feature such as a catchy headline about horns growing on the back of teenagers’ skulls. SIFT offers students a different kind of tool to wade through the immense amount of information pouring across their screens. While critical thinking is very much a needed skill, SIFT asks that students focus on deciding about whether a source is worthy of attention instead of performing a deep analysis of every source. In doing so, the time and attention needed to do a potentially deep dive into a topic can be saved for those sources that are deemed worthy of further attention. As previously noted, SIFT is not going to solve the problem of online misinformation and disinformation, but it certainly is a viable tool for “add[ing] a bit of friction into the system” (Warzel, 2021, para. 20).

Note: Additional resources about the SIFT Method include Caulfield’s online mini-course “Check, Please! Starter Course” and his “Sifting Through the Coronavirus Pandemic” blog.

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Everyone Gains from Understanding the First-Generation Student Experience

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Abstract

This article notes the identities, obstacles, and experiences of first-generation college students and the efforts of DCCC's Title III Grant's First-Generation Student Success Program (FGSS).

Author Biographical Note

Emily Fahy, MS is the Director of the Office of First-Generation Student Success, which was developed because of the Title III Strengthening Institution Grant. Emily started in this position in January 2020 after serving as a TRiO Student Support Services (SSS) grant at Harcum College for four years. Emily has also been a part of the DCCC community as a part-time counselor since early 2019. She has a master's degree in Counseling from Shippensburg and has worked in student retention and counseling services for the last 10 years.

Scott May is a part-time Retention Specialist with the FGSS Program. Before joining the FGSS team, Scott was an Assistant Professor of English, Academic Director of an equity-minded accelerated program, and Writing Center Coordinator at Ivy Tech Community College in Lafayette, Indiana. Scott is a proud community college graduate and first-generation college student.

Keywords: First-generation, Continuing-generation, Mattering, Hidden Curriculum, Barriers

What Does It Mean to be First-generation?

The Department of Education classifies first-generation students as any student without a parent who completed a baccalaureate degree (Higher Education Act. 1965). To start, it is important to note the broad scope of that definition. For example, a first-generation student may be the first student in their family to apply for and attend college. Yet, a first-generation student may also have parents who earned sought-after and lucrative positions without entirely completing their four-year degrees. These circumstances create potentially vast differences of experiences within those considered first-generation college students. Furthermore, the Department of Education's first-generation definition does little to define how these students identify. For example, first-generation status doesn't define age or race, nor does it define what a student's educational or professional experiences were prior to enrolling to college. For example, some first-generation students have been professionals for decades but have not been in a "typical" educational structure for some 30 years. Others, however, graduated high school only weeks before coming to campus.

While there is much diversity within the group, we do see trends when examining first-generation students in comparison to their continuing-generation peers. Center for First-Generation Student Success (2019), first-generation students are more likely to be over the age of 30 (28% first generation vs. 16% of continuing generation students). Another important factor between the two groups, which can be a significant barrier to success, is economic differences. On average, the median household income of first-generation students is almost \$50,000 less than the average continuing-generation students (Center for First-Generation Student Success, 2019). In 2019, half of all DCCC students were identified as first-generation, which only further demonstrates the diversity within first-generation students (DCCC, 2019). Additionally, first-generation students are also more likely to be working while enrolled. Nationally, 66% of first-generation students were employed while taking college-level courses (Center for

First-Generation Student Success, 2019). First-generation students are typically working more hours on average too, working a median of 20 hours per week compared to 12 hours per week for continuing generation students (Center for First-Generation Student Success, 2019). It comes as no surprise then that first-generation students are also more likely to attend college part-time. According to Center for First-Generation Student Success (2019), only 40% of first-generation students attend full-time versus 48% of continuing-generation students.

Understanding these and other differences between first-generation and continuing-generation students is key in understanding some of the common barriers to success that first-generation students face. This understanding, in turn, helps to inform how DCCC is rising to the challenge of welcoming and supporting first-generation students.

Barriers to Success

First-generation students are often non-traditional students too. And, of course, that often comes with many responsibilities outside of college. According to the National Data Fact Sheet on First-Generation College Graduates (2020), 30% of all first-generation students have dependents. Here at DCCC, 17% of all first-generation students are single parents (DCCC, 2019). The National Center for Education Statistics found that in 2016, 43.2% of first-generation students worked between 20 and 40 hours per week and 36.4% worked over 40 hours per week. These additional responsibilities often make it hard to balance work, school, and other obligations. While balancing work, family and school is difficult. Students often struggle with how best to manage conflicts when schoolwork negatively affects their work or family responsibilities.

Communication with professors, such as understanding the norms and expectations of how and when to ask for help, is key to navigating obstacles or overcoming certain situations that may arise during the semester. A lack of this skill is another common obstacle for first-generation students. An aversion to communication because of a lack of know-how can lead some first-generation students, with no parents to ask, to simply avoid addressing instructors altogether. This circumstance promotes academic isolation that will likely lead to negatively impacted grades, especially when time-sensitive life events occur.

The transition to college, for all students, can be challenging. Many new college students often struggle with the increased workload or are unclear of the expectations of college. There is also a steep learning curve when it comes to the financial commitments associated with a college-level education, both during college years and after. Navigating these expectations and more nuanced etiquette anxieties can add to the stress of every new student. However, first-generation students are more likely to lack a clear support person who can help them navigate college norms, lingo, and various process systems. This “hidden curriculum” of college can be difficult to navigate, and not understanding it can bring significant setbacks, embarrassments, grade penalties, and/or financial costs for first-generation students (Jackson, 1968). Simply put, there is a greater chance for miscalculations and anxieties to have greater consequences for first-generation college students. For example, first-generation students often do not recognize the consequences of withdrawing from courses. In attempts to avoid growing stressors, first-generation students more commonly withdraw from classes without understanding they are still obligated to pay for them. The severe and long-lasting ramifications of a potentially wounded GPA or the potential long-term effect on financial aid eligibility is often unrealized, too. Lacking a clear support person, such as a college-experienced parent, often results in long-term setbacks too significant for most to overcome.

Similarly, lacking a familial guide in navigating financial aid can create a barrier for first-generation students’ success. Understanding financial aid processes and intricacies, including the Free Application for Federal Student Aid (FAFSA), understanding subsidized vs. unsubsidized loans, grants, additional cost of books and supplies can be overwhelming. In addition to lacking a support person to help them understand and navigate financial issues, first-generation students often experience unforeseen circumstances that arise. One financial setback can often lead to catastrophic consequences on a student’s ability to perform academically.

As previously mentioned, balancing multiple responsibilities, a lack of communication skills, support or understanding how to negotiate campus norms and resources, and navigating financial resources are barriers to

success. While these barriers aren't unique to first-generation students, they can disproportionately affect them. And, these barriers are what largely lead to failures. What may be most important to note, however, is that these barriers can dramatically affect a student's sense of belonging.

A personal connection to college through professors and staff, which is largely influenced by the above barriers, can make a huge difference in a student's feeling of belonging. That sense of connectedness and belonging has been shown to positively impact student satisfaction and retention. A student who has a sense of belonging is better outfitted to overcome a barrier to success. For this reason, when examining the DCCC's support for first-generation students, it is important to ensure we are implementing a holistic, college-wide approach to offering a sense of belonging. Therefore, each educator must become a good "students of our students." We need to be aware of how we approach all students individually, and we need to increase transparency and examine our assumptions of what students already know when they walk in the door. Taking time to consider each student as an individual will improve the outcomes for all our students, which will in turn support first-generation students, their leaning experiences, and overall outcomes.

COVID-19 Effects on First-generation Students

The transition to online learning due to the COVID-19 pandemic was a challenge for everyone, but we now have data related to how this has affected first-generation students. Soria et al. (2020), found that when looking at first-generation students, they experienced more challenges adapting to online education. This included having inadequate spaces and technology, additional work and family responsibilities, difficulty adapting to online instructions, and financial hardships such as more food/shelter insecurity. These findings are in line with what we know about first-generation college students in that they are more likely to be working, have families, and other responsibilities.

Interestingly, another commonality of first-generation students found by Vetro (2021, para. 15) was that "first-generation students adapted to this abrupt change by tapping into their resilience, self-determination, and self-efficacy to overcome these obstacles." By relying on their strengths, many have found that while online learning has presented many challenges, it has also reduced some barriers as well. In a panel of DCCC students held on October 20, 2021, students who were parents, found the flexibility of online classes has taken away the barrier of needing transportation to physically be on campus (Fahy et al., 2021). The ability to learn in the home and thus avoid the need for childcare and money to pay for gas has been a benefit of online learning.

Still, other obstacles were exacerbated by the pandemic. One particularly difficult obstacle was a lack of community and personal interactions – in other words: a sense of belonging. The physical isolation of not being on campus or in class to have the ability to connect with professors or peers before or after class has led to a general feeling of isolation. During that same student panel in October, DCCC students shared they lacked regular interactions with professors who were passionate, enthusiastic, compassionate, and approachable. Students on the panel also shared that they wanted the opportunity to share personal experiences, to be encouraged to make mistakes, and to have the opportunity to meet with someone who engages with students outside of class. They wanted an avenue to build community and connections with other students, and the chance to ask questions discreetly.

The pandemic has presented struggles not only to students, but also to higher education practitioners as well. The Office of First-Generation Student Success (FGSS) which was developed as a result of DCCC receiving a Title III Strengthening Institutions Grant during the pandemic, has felt the challenges since inception.

One of the main strategies of this grant is to create a sense of mattering for first-generation students. "Mattering" as a theory was established by Schlossberg (1989). Summarizing Schlossberg, Vetro (2021) describes the "importance of mattering as the belief that others care about what one thinks, wants and says" (p. 96) This concept was perfectly mirrored in a quote from a student on the panel when he pleaded with the DCCC audience to remember "we are human." Students want to be seen as individuals, and they want to know that who they are

and what they have to offer matters to the college community as a whole. Establishing a proactive outreach and support system during a pandemic has highlighted many issues, including reaching our target audience through the limitations of emails, poster attachments, cold-calling, and Zoom meetings. With those attempts, we have felt the frustration of our students regarding mattering – not unrelated to belonging. Our largest challenge is to sell ourselves as supportive human beings and create meaningful connections while being only virtually connected. In other words, FGSS has had struggles connecting with students virtually as we attempt to convince them we are able to provide a personal touch.

Programs of Office of First-Generation Student Success (FGSS)

FGSS was designed to create a comprehensive college-wide approach to addressing the needs of first-generation students. Since January, FGSS has been developing a holistic outreach and coaching program to serve prospective, new, and returning first-generation students. Within the FGSS team is one Enrollment Navigator, who is beginning to provide targeted outreach to prospective students, and who is available to answer questions and help them through an often-confusing application process. The team also employs several Retention Specialists who are available to answer questions and accompany students along the way during semester challenges.

In addition to individual outreach and coaching, FGSS has developed a variety of programs to help students understand hidden curriculum and to assist the ever-important transition to becoming college students. By offering both in-person and virtual supplemental new student orientations developed specifically for first-generation students, we have provided a more personal touch to incoming students. This approach has included tours of the Marple campus (in-person) where students (and parents) can ask questions, meet with FGSS coaches, and learn about the enrollment process. We also offer discussions and connections with first-generation peers through our virtual sessions. A “Transition to College” program is being designed to help students learn what it means to be a college student. We have created a non-credit success course called “Decoding College and Creating Communities,” which is designed as a companion course for the credit-based courses to tease-out the hidden curriculum in sync with the challenges of the semester. To positively impact the college communities’ influence on first-generation students, FGSS is in the early stages designing a Professional Development program to keep the college community informed about the best practices for serving the first-generation population. This will include incentives for faculty and staff participation and a mini grant to solicit new innovations to improve the College’s services for first-generation students. In each of the student programs, we are working to develop and integrate financial literacy curriculum as well.

Takeaways for Practice

National Association of Student Personnel Administrators’ (NASPA) Center for First-Generation Student Success outlined best practices for serving first-generation students. These best practices include a comprehensive, college-wide approach and an institutional mindset change (NASPA, 2021). This includes moving from a deficit-minded approach, which looks at first-generation students through the lens of what they lack, to an asset-based approach, which challenges us to encourage students to use their strength and talents to enhance their success. It is a shift in perspective from a student being “college-ready” to a college being “student-ready” (NASPA, 2021). We want to better understand those barriers to success and encourage a closer look at how DCCC can help enhance the first-generation college experience. This approach begs us to consider what we can do to support students in utilizing their strengths and proactively supporting students during their time at DCCC.

It is commonly agreed that one of the best ways to help first-generation students is by being proactive in reducing barriers for all students. One specific strategy is to increase the transparency of college life. We’ve mentioned that first-generation students often lack prior understanding of the “hidden curriculum.” Therefore, we encourage everyone in the college community to be aware of more opaque practices. For example, overused jargon such as: NSO, FAFSA, PELL, even GPA, and etcetera. Instead, using clear and descriptive language with all students creates a more inclusive and common experience. Additionally, transparency in the classroom is vital as well. Many first-generation students may not instinctively understand the norms of attendance, deadlines, a Canvas

submission processes, or how and when to communicate with an instructor.

Overall, students want to feel a sense of belonging and want to be feel that they matter. This task will require the efforts of all of us. As a college, we must challenge ourselves to examine current practices and find ways to examine our interactions with students and find increasingly proactive ways to enhance the student's experience. however, it is not sufficient to only reach out to first-generation identified students. To be most effective, we all need to be mindful of our interactions with students and how we can positively impact a student's feelings of mattering and belonging while they navigate college resources. Faculty are encouraged to create spaces for students to connect and ask questions directly applicable to their experiences. Vetro (2021) encourages faculty to carve out time to meet with students individually and normalize the professor-student relationships so students, especially first-generation students, do not feel reticent about reaching out for help. Additionally, College administrators are encouraged to find additional ways to reach out to students and create opportunities for increased connections. These efforts should be done while considering the impact of each interaction will have on students as we ensure they are acculturating well into the college community and feel that they matter. As one DCCC student said during the student panel, "Community is in our name." Let us work together to go the extra mile to reach out, be available to students, and work to build our community of learners where all students can feel like they belong.

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Improving Student Preparation for Careers and Transfer Through a STEM Topics Course

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Keywords: career planning, research experience, STEM (Science, Technology, Engineering, and Mathematics), student success, transfer preparation

Abstract

In 2018, Delaware County Community College was awarded a five-year National Science Foundation S-STEM Grant (Award 1741847) to provide scholarships and fund the development of a program to promote the retention and transfer of Mathematics and Natural Science and Engineering students. A key component of this program is a STEM Topics course which was designed to provide activities to promote the success of STEM students including building cohorts and career planning and preparation for transfer. In this paper, we present evidence that STEM Topics is succeeding in these goals.

Author Biographical Note

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Introduction

The U.S. Bureau of Labor Statistics projects greater growth and higher salaries for STEM occupations as opposed to non-STEM occupations (U.S. Bureau of Labor Statistics, 2021). To meet the needs of this growing workforce, it is important to attract and retain a diverse group of students into STEM majors. However, once students enter college with a major in STEM, almost half of bachelor's degree students will either leave the program or the institution without obtaining a degree and the number is even higher for associate degree students (Chen, 2013). Even when students graduate with degrees in STEM, they may not continue into STEM careers. Day and Martinez (2021) report that only 28% of STEM graduates were employed in a STEM field in 2019. The authors note that there are several possible explanations for this low number. For example, some graduates may apply STEM skills to non-STEM jobs, however, other factors include lack of specific skills, requirement for graduate level education, and movement into administrative positions. It is important to not only encourage students to enter STEM degrees but also to provide them with tools to persist and succeed in their chosen STEM career fields.

A variety of strategies are reported in the literature that have been demonstrated to improve student retention and success in STEM. Participation in a career planning course can increase 2nd year retention of STEM majors by almost 18% (Belser et al., 2017). Learning communities can foster an increased satisfaction with courses, more social interactions, and higher achievement (Firmin, 2012). Other studies have reported similar results for students participating in learning communities including higher GPAs and increased spring to fall retention (Hegler, 2004). Learning cohorts can also improve students' readiness to enter the workforce (Beachboard et al. 2011) through development of problem-solving skills and the ability to work with others. Students who take courses in their first semester that provide them with tools for succeeding in college demonstrate increased retention rates, academic

success, and transfer rates (Zeidenberg et al., 2007). Retention rates also improve when students are provided tools for setting educational and career goals early in their college experience (Hernandez et al., 2013; Law, 2014). Students who can engage in research early in their college careers report increased confidence in their ability to think and work like a scientist (Seymour et al., 2004). Participation in undergraduate research can contribute to increased persistence, particularly among minority students, and graduation rates of biology students (Jones et al., 2010).

In 2018, Delaware County Community College was awarded a \$650,000 National Science Foundation S-STEM Grant (Award 1741847) to support our Supporting Talent and Recruitment in STEM (STARS) program for students pursuing Engineering (EGR) and Mathematics and Natural Science (MNS) Degrees. The goal of the project is to investigate strategies to promote the retention and persistence of academically talented STEM students with demonstrated financial need. One of these strategies is a student success course designed to provide skill sets of particular importance to students planning to enter STEM career fields.

STEM Topics Course

Recipients of the STARS scholarship are required to enroll in our STEM Topics (SCI 150) course during their first year in the program. This course helps the students to build a sense of cohort, engage in career exploration, prepare for transfer, and participate in a short research experience. STEM Topics was modeled on an existing course at Delaware County Community College, Engineering Topics. Engineering Topics is a required course in the Engineering Program and helps to prepare students for an education and career in engineering. The STARS scholars enrolled in STEM Topics course investigate careers and transfer programs related to their interests. They develop skills in research and communication that will improve success in STEM courses and build self-esteem. The students work with STEM mentors and transfer counselors to prepare them for graduation and transfer.

Methods

Pre- and Post-course surveys are used to evaluate the impact of the course on career planning and preparation for transfer. The Pre-course survey is administered at the beginning of the semester prior to engaging in the course activities to establish a baseline for the cohort. The Post-course survey is administered at the end of the semester during the last week of classes to assess the perception of their learning. The students respond to the same questions on both surveys using a Likert scale.

To assess research, scientific communication, and technical writing skills, the students complete a Pre-scientific writing lab report (Pre-lab report) and a Post-scientific writing lab report (Post-lab report). The Pre-lab report provides a baseline for the assessment. To write the Pre-lab report, students are provided with methods and results for an experiment or engineering project related to that semester's research project. The students are instructed to write a lab report with seven components (Title page, Abstract, Introduction, Methods, Results, Discussion/Conclusions, and References) with a brief description of each. The students were asked to complete no additional research on writing a lab report.

A rubric is assigned to the Pre-lab report, as a baseline, but the students earn points for simply submitting the assignment. During the remainder of the semester, the students engage in a research experience completing an investigation similar to the one provided for the baseline activity. As the students work on their project, they are also provided instruction on scientific and technical writing, including writing lab reports. The same rubric used to evaluate the Pre-lab report is used to assess the Post-lab report. However, the students earn the grade calculated from the rubric. The rubric scores for the two assignments are compared to determine if there is an improvement in the overall score.

Results

For the Pre- and Post- surveys, students were asked to select a number, on a scale of 0-3 for the nine

statements listed below, to identify how each statement describes themselves (0=not at all, 1=somewhat, 2=mostly, and 3=completely). Survey results are summarized in Figure 1.

Figure 1. Pre-course and Post-course Survey Results

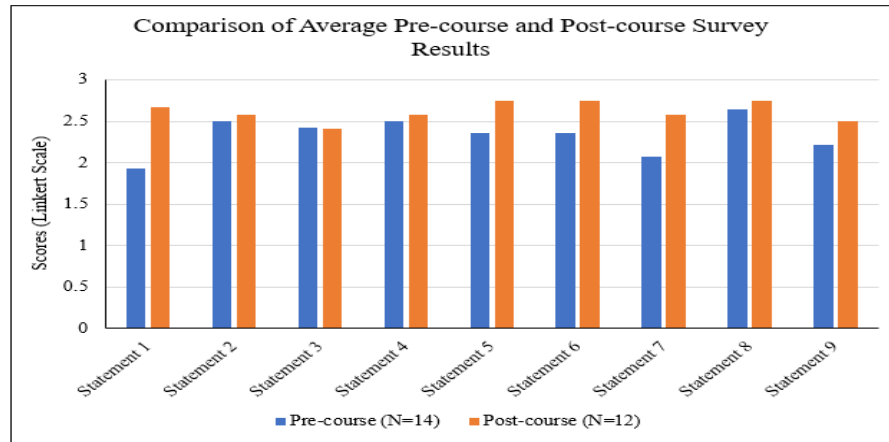


Figure 1. Pre-course and Post-course Survey Results

Survey statements:

1. I have researched multiple career paths as I plan my future.
2. I have narrowed my choice of career paths to one or two options.
3. I have selected a career path that I know matches my interests and talents.
4. I know exactly the level of education that is required for my chosen career path(s).
5. I have identified two or more institutions for continuing my education.
6. I know which courses I should complete before applying to my potential programs.
7. I'm aware of all exams or other prerequisites that will be required before transferring.
8. I'm confident that I'll be able to meet all of the educational requirements for my chosen career path(s).
9. I'm confident that I'll be able to succeed in obtaining and maintaining employment in my chosen career path(s).

Overall, students showed an increase in identifying with positive statements regarding career paths, transfer, and confidence in obtaining an education and success in their chosen career (Figure 1). Most notable was the change in identifying with statements 5 and 7, "I have researched multiple career paths as I plan my future." and "I'm aware of all exams or other pre-requisites that will be required before transferring." with increases in response values of 38% and 25% respectively.

Survey results for statements 2, 3, 4 and 8, at the most show small improvements. This could be a result of overlapping career exploration topics with other statements in the survey. These statements will be further evaluated analyzing the students' interests identified in the comment section of the survey and revised as appropriate for future surveys to better support our students.

As mentioned, students are also encouraged to make comments on the Post-course survey regarding the most useful components of the course, least useful components, and areas for improvement. Comments regarding what students felt was the most useful course component include:

- “Having people there for me, esp. with registration. Before the scholarship I felt lost even though I knew what I wanted, but now I feel like I have poeple [sic] directing me on the right path for the first time.”
- “Learning about the research process and how to write a proper research paper. I never had such an experience before this course, so learning this was helpful.”
- “The most useful part of the course was looking at carrier [sic] paths (the quiz about what we lean towards was spot on) and researching the carrier [sic] paths we were interested in was great insight.”
- “The most useful part of the course for me is the career goals because its [sic] helps me to figure out what exactly I will focus on about my career.”

To assess the impact of the research project in the students’ communication and technical writing skills, the scores of Pre-lab report and Post-lab reports were compared and the % increase between the two assignments evaluated. Results summarized in Table 1 below show an improvement for all students, with an average of about 40% increase and a significantly wide range (6% to 170%).

Table 1. Comparison of Pre-scientific and Post-scientific Writing Results

Student	% increase in score
1	16.7
2	57.5
3	5.8
4	9.3
5	52.3
6	15.6
7	36.8
8	49.1
9	6.5
10	170.2
11	21.8

The large variability observed between students could be expected because students join the program with a wide variety of educational experiences. Some students enter the program with little or no college coursework whereas others are in their second year at DCCC or have earned bachelor’s degrees in other disciplines.

Additionally, we have anecdotal evidence the course contributes to the sense of cohort among the students, especially since the move to online learning environment due to the pandemic. While meeting in the virtual classroom, students provide each other with reassurance and academic support. Students formed study groups and shared information about applying to transfer institutions.

Discussion

The STEM Topics course is not designed to replace a general college success course that is administered across disciplines. These courses generally include topics such as time management, study skills, learning strategies

and self-motivation. The one-hour per week contact time sets a limit on the subjects that can be covered within the one semester time frame. The purpose of the STEM Topics course is to provide additional tools tailored to the needs of students preparing for continuing their education in science, mathematics, and engineering. By enrolling in this course, students may focus on topics that are not included in a college success course such as scientific and technical communication and experimental design. Other studies have demonstrated that students respond positively when asked about the value of their success courses in preparing them for the college experience (O’Gara et al., 2009). Our surveys also demonstrate that students found the STEM Topics course useful in developing skills for future success, particularly the research experience and career planning. In this study we have also demonstrated a positive impact on student attitudes toward their preparation for transfer and careers as well as increased confidence in their ability to obtain and retain employment in their chosen career fields.

Variations in student responses to survey questions may be attributed to the point in their academic careers when students enroll in the course. The STEM Topics course was designed to be a first-semester course for incoming Engineering and Mathematics and Natural Sciences students. However, students are often admitted into the STARS scholarship program after completing one or more semesters at Delaware County Community College. Unfortunately, some scholars may be taking STEM Topics in their second year of study and even their last semester at the college.

Although the sample size was small, results are being used to improve the content and delivery of our current STEM Topics course. We are also exploring the possibility of offering the course to students outside of the STARS program. Increasing the number of sections would require resolving several potential issues related to scale-up, particularly as related to the research experience. At the current time, the research project is funded through the National Science Foundation S-STEM grant. Our class sizes are small (≤ 10 students) which makes it relatively easy to find an open lab space. During the pandemic, the students were able to complete the research activity at home. Expansion of the course to more students would require identifying a cost-effective research project that could be scheduled when laboratory space is available.

Although expanding the STEM Topics course could be a challenge, the lessons learned from the STEM Topics course could easily be applied to other disciplines. Career exploration could be enhanced through invited speakers from key fields of interest. Preparation for transfer can be tailored for institutions offering degrees in the students’ desired fields. The hands-on research experience could be replaced with a collaborative project best suited to the students’ needs.

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