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LEARNING MATTERS

The Journal of the Durham Tech Teaching-Learning Center

LEARNING MATTERS
The Journal of the Durham Technical Community College
Teaching-Learning Center

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EDITOR'S NOTE

As I re-read the articles for this edition of *Learning Matters*, I found themes running through them: a call to awareness, a call to action, and a call to collaboration. In teaching, these themes work synergistically, one enriching the next in a continuous cycle. While you can read the articles in any order you please, I invite you to examine the interplay between these themes as you explore our journal of scholarly teaching and learning.

Two articles stemming from the Teaching-Learning Center's ongoing programs, Faculty/Staff Interest Groups (FIGs) and the Scholarship of Teaching and Learning (SoTL), appear in this edition. FIGs consist of multiple teams of small groups of faculty and staff who meet regularly in the TLC to work collaboratively on a pedagogical concern for one academic year. FIGs provide a meaningful structure for reflecting upon, researching, and improving teaching. SoTL involves one full-time or part-time faculty member researching a pedagogical question relevant to their subject area of expertise. Like FIGs, SoTL provides a scholarly structure for faculty to focus on improving their courses in a way meaningful to them. The project is substantial enough to take place over three semesters, at the end of which the faculty member publishes their findings here in *Learning Matters* or presents in the TLC. The other articles in *Learning Matters* represent the authors' scholarship beyond the FIG and SoTL structures.

A thank you is in order to the Durham Tech Marketing and Communications Department for their assistance in the printing of *Learning Matters*. Thank you, as always, to the members of the TLC Advisory Committee for assisting in the biennial production of this journal. You make all the work of the Teaching-Learning Center richer and more enjoyable.

DESEGREGATED YET STILL UNEQUAL

Kara Battle

In the past few decades, higher education has become more critical and more accessible for many people in the United States. People with college degrees earn more over their lifetimes and are better equipped to fully participate in the American Dream. This quest for a higher education, however, has been at the center of the struggle for freedom and equality for the African-American population in America since colonialism. A core belief of our democracy is the notion that it is right and fair that all people, regardless of skin color, should have the opportunity for an education, including access to higher education, but that belief is not always in practice, especially when looking at issues involving equity in higher education.

African Americans have always valued education. The education of African Americans, enslaved and free, was discouraged during the era of slavery in the United States and was eventually made illegal in many of the Southern states. In the Northern states, however, African Americans had more access to formal schooling and were more likely to have basic reading and writing skills. It was believed that literacy was a threat to the institution of slavery. First, literacy facilitated knowledge for slaves about the successful slave revolution in Haiti of 1791–1804, the end of slavery in the British Empire in 1833, and the writings of prominent abolitionists. Secondly, literacy allowed, or potentially allowed, slaves better access to information about the Underground Railroad and other routes to freedom. Since it was believed that slaves were inferior to their white plantation owners, especially intellectually, and were believed to have inadequate mental capacity for education, the common belief was that slaves would become confused by attempts to educate them. But the hunger for knowledge was stronger than the oppressive prejudices of most slave owners. Oftentimes, the risks for slaves to learn to read and write meant beatings, amputations, and even death. The United States is unique in that it is the only known country to have prohibited slave education. Nonetheless, both free and enslaved African Americans continued to learn to read and write as a result of the sometimes clandestine efforts of African Americans themselves as well as schools and informal education operating during this period.

The end of slavery, and with it the legal prohibition of slave education, did not mean that education for former slaves or their children became widely available. Schools were developed by and for African Americans. Many were linked to churches while others were linked to industrial education, but the schools were primarily day schools with a few existing as boarding schools (Ruelas, 2017). Historically Black Colleges and Universities were also born out of some of these efforts. For all the devotion to education in this era, the schools

developed by and for African Americans did not produce a level of property ownership and economic self-sufficiency among its graduates, which were among the primary goals of these schools. Education accomplished much, but it was no match for the racist structures of the society, particularly after the end of Reconstruction.

According to James Anderson, author of *The Education of Blacks in the South, 1860-1935*, "Former slaves were the first among native southerners to depart from the planters' ideology of education and society, and campaign for universal, state-sponsored public education. In their movement for universal schooling the ex-slaves welcomed and actively pursued the aid of Republican politicians, the Freedman's Bureau, northern missionary societies, and the Union Army." Not only did African Americans improve their own educational opportunities, but they also helped improve education for whites by challenging the plantation owners' educational paradigm that schooling happened in the home and not in public schools. African Americans were still unable to reap the benefits of formal education enjoyed by white people.

Thirty years after the abolishment of slavery in the United States, the US Supreme Court's Plessy v. Ferguson decision of 1896 gave birth to "Separate but Equal," which established racial segregation in public facilities, including education facilities, across the nation. However, this doctrine, instead of establishing equality, as the standard suggested, institutionalized inequity and increased the racial divide in the United States, paving the way for the dismantling of schools, cutting off of vital resources, and acts of extreme violence, including cross burnings and lynchings. It would not be until 1954 in Brown v. Board of Education that the US Supreme Court unanimously declared racially segregated schools an unconstitutional violation of the Fourteenth Amendment. The decision overturned the Plessy v. Ferguson "separate but equal" doctrine in schools with the Civil Rights Act of 1964 outlawing racial segregation and discrimination in all other facets of daily life. Access to quality education, though, would not come quickly or easily for those in the African-American community in the decades following these landmark victories.

Racial segregation in schools, de jure and then de facto, and inadequate funding of the schools for African Americans, continued into the latter twentieth century and in many areas is still a serious problem. Creating equal opportunity in higher education has been and remains a slow and uneven process. There is continued resistance to equal opportunity for higher education as evidenced by the 2003 case involving the University of Michigan, Grutter v. Bollinger, in which a deeply divided US Supreme Court recognized that educational institutions have a compelling interest in a diverse student body. Despite gains in access to higher education, colleges and universities remain disproportionately white and

the goal of equal opportunity remains unfinished business.

Knowledge of this historical information should inform our work at Durham Tech. We should not continue with practices and procedures that continue to exclude underrepresented and underserved students. Many traditional educational practices are biased and feed into the stereotypes that have stemmed from slavery and segregation. For example, tutoring and other support services should be incorporated into courses instead of used as a reference source when students are in academic crisis. We need to provide professional development for all employees on implicit biases. As faculty, there needs to be a more collaborative working relationship with advisors and other faculty across campus who interact with the students we teach. We need to work as a team focused on meeting the needs of our students. We also need to ensure that we are offering programs that are economically sustaining and continue to educate students on the value of a college education at any level.

Though there is evidence that education can increase wage earnings, there are still great disparities in earnings depending on degree type, age, gender, race, ethnicity, and occupation (Carnevale, Rose, & Cheah, 2011). Education beyond high school has increased, and median income has grown. Nonetheless, the disparities in earnings still continue to increase (MDC, 2018). For example, according to Carnevale, Rose, and Cheah (2011), women earn less at all degree levels, even when they work as much as men. Similarly, at all levels of education attainment, African Americans and Latinos earn less than Caucasians.

Change in higher education must happen, and that change must begin with leaders. Leaders must become equity-minded by assessing their colleges' practices, calling attention to patterns of inequity and assuming personal and institutional responsibility for student success. This "Equity Mindedness" will increase opportunities for students of low-income and students of color (Step Up and Lead for Equity, 2015). All students deserve empowering forms of learning, which means leaders must look closely at all facets of the college's current landscape through the lens of equity to ensure all students have equal chances at seeing success. It is imperative, therefore, that all members of a college community assess their practices and policies for patterns of inequities by being race-conscious and through understanding the social and historical exclusionary practices in the American higher education system that have resulted in an ever-increasing achievement gap between white and minority populations. This will require a shift in the way inequities are understood. "Equity-Minded" practitioners recognize implicit biases and stereotypes that can drive decision making and take ownership of any inequitable practices that require change. After all, student success—all student success—must be seen as personal and institutional responsibilities.

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HUMANISTIC INCLUSIVE EDUCATION

Alicia Freeman

Too often individuals are expected to conform to meet predetermined expectations for courses and programs that are accepted by conventional instruction and dominant culture but not necessarily required to maintain the standardization within a specific subject or field of study. This can result in a minimization of unique abilities and a lack of inclusivity within the system of higher education and ultimately the workforce. This can be identified as the foundation in many cases involving discrimination and inequity. Individuality distinguishes the unique gifts that are necessary to fulfill the purpose specific to each student no matter which pathway is taken to achieve that level of self-actualization. Our students are constructive in nature and strive to actualize and expand their experiencing beings (Motschnig-Pitrik & Mallich, 2004). As educators, we are tasked with the responsibility of creating these opportunities in the learning environment. Yet, are conventional methods of instruction crossing the fine line of challenging into discouraging for students of underrepresented populations? Are we as educators shifting our approaches to meet the needs of the diverse individuals attending college? How can we close the gap and move the needle to facilitate the success of students we serve? I intend to explore these concerns under the framework of humanistic theories while incorporating universal design in an effort to propose a more inclusive learning environment in the realm of higher education.

One may conclude that a career in the area of education would encompass a commitment to being a lifelong learner. However, when encountering new or unfamiliar situations including different or seemingly more challenging students, a desire to "fix" the individual may be instinctually produced by unconscious bias. Depending on the past experiences of an individual, the receipt of new, enlightening information can sometimes be an earthquake to their very existence and thus shake the core of certain beliefs and value systems. This idea applies to not only the students we serve as they enter college but also the educators. As we encounter an influx of nontraditional students, in many cases we expect them to thrive academically in a traditional learning environment. As experts of a particular specialty, it is essential to not only be an observer of the learner and the environment but to also observe oneself. Achieving a level of self-awareness and including the evaluative methods required to tailor educational approaches and communication styles to meet the needs of diverse students is essential while also continuing to maintain the integrity of the subject matter. Naturally, there is a disproportionate position of power in the instructor-learner relationship. This, accompanied by the new experience and challenge of entering college, can be threatening and discouraging for students if they are not met with a space that

is welcoming and supportive of the unique abilities that they bring to the table. Student success is contingent on the support of the educators. How might one apply humanistic theories in the educational setting to champion student success?

The characteristics of humanistic theories in the educational context are:

- focusing on the individual as the subject of their own formation
- inducing personal development by actions of self-awareness
- selecting content depending on the needs of the student
- free access to knowledge guided by the motivational and personal orientation
- fostering the use of multiple sources
- exercising teaching authority by nondirective means (Tudor M., 2014).

The enrollment of underrepresented populations in higher education continues to increase throughout the nation. According to the National Center for Education Statistics (2018), from 1976 to 2015 the percentage of Hispanic students rose from 4 percent to 17 percent, Asian/Pacific Islander from 2 percent to 7 percent, Black from 10 percent to 14 percent, and Native American from .7 percent to .8 percent. This indicates a major cultural shift in the arena of higher education, which could also create an increased need in the support of vulnerable populations such as minorities, first-generation college students, and international students—while also considering factors of socioeconomics, gender, and disability. Although a physical classroom or online learning setting is unable to provide an atmosphere that encompasses all levels of necessary support, students can be met with a welcoming, nonjudgmental space in order to feel a sense of belonging and an expectation of success. Students with sensitive or traumatic past experiences may struggle to find their footing in the college arena, which can be downright dehumanizing in certain educational situations. I am submitting for consideration a broadened approach to the "open door policy" by facilitating an atmosphere where students are made to feel that they are in the right place no matter their past or current circumstances.

Identifying ways to incorporate methods of universal design into curriculum can be groundbreaking in providing more avenues for students to succeed. According to Rogers (1951), "a person cannot teach another person directly; a person can only facilitate another's learning." Universal design provides the framework for facilitating an environment for learning. The "design" component itself indicates that the educational atmosphere and materials should consider the following: D – Demographics, E – Economy, S – Senses, I – Intuitive, G – Generational, and N – Navigation of the students (Hebdon, 2007). Following this approach requires that the instructor have some level of connection and

understanding with the students they set out to teach.

Curricular design should incorporate certain prerequisites of learning:

- information must be accessible
- support must be available for the development of skills
- the learner must perceive the learning to be important.

Additionally, prerequisites should be built into the curriculum by:

- providing multiple representations of the information being presented
- providing multiple or modifiable means of expression and control
- providing multiple or modifiable means of motivating and engaging the students (Hebdon, 2007).

Perhaps as an instructor one does not have the immediate authority or outlet to propose instantaneous changes to curricula. What are some practical ways one can facilitate an environment for growth in the interim? Make attempts to get to know students on a deeper level. This may involve polls, surveys, icebreakers to begin class or reflective questions to end class. Questions may be personal or academic, but this allows a space for students to safely express themselves and generate awareness around areas where additional focus or support may be needed. Provide an outlet for constructive feedback throughout the semester. Permit students to submit concerns or suggestions anonymously prior to end-of-semester evaluations. Make announcements, ask additional questions, or incorporate changes to style based on the information received. Offer office hours virtually or in person. Require mandatory appointments at some point during the semester. Recommend peer collaboration and teamwork. Offer incentives or assist with organizing study or support groups led by class volunteers. Encourage the student leader to collect questions or concerns in regards to course content or delivery to be provided to the instructor weekly. Embrace the use of campus and community resources. Give incentives to students who elect to use resources for support due to the instructor recommendation (e.g. tutoring, counseling, volunteering, clubs, activities, etc.). Such opportunities can be used to collect qualitative and/or quantitative data from students for research projects with the implementation of new techniques to gauge the impact on success rates and equity gaps. This can generate positive change in not only one classroom but, if documented and published, in the field of education as an entire unit as well.

Much greater clarity is needed about the difference between institutional measures of student success and the larger issue of connecting educational outcomes to society's needs (Ewell & Wellman, 2007). Why must it require federal mandates, legal action, or an allocation of large grant funds to implement the strategies needed to meet the needs of our students? If we

intend to effectively serve a more diverse population, instruction can no longer be solely the transfer of information as conventional teaching would have it. The ability to create independent thought, new ideas and initiatives, and judgments based on differing circumstances is what makes people so valuable. However, I would venture to conclude through experience as a student, educator, and counselor that many educational and professional arenas are lacking in the area of the three major conditions set forth by humanistic theorists. Psychologist Carl Rogers indicated that for a person to "grow," they need a space that provides genuineness, acceptance, and empathy (McLeod, S.A., 2014). Many times the fear of exposing vulnerabilities prevents individuals from being completely open and self-disclosing; therefore, we lack the level of transparency found in being truly genuine. We may find it difficult to provide unconditional positive regard in certain situations, especially if that means accepting things when we do not necessarily agree. Empathy, while often used interchangeably with sympathy, possesses a very different meaning in terms of the emotional connection to humans (Garner, 2009). The challenge of understanding and supporting unique challenges without pitying a person due to their circumstances is necessary for true empathy. According to Tudor (2014), it is believed that reaching an optimum balance between the interpretive paradigm and the normative paradigm would generate the defining elements allowing education to start and end with the students. As educators, we have to challenge ourselves to exercise a growth mindset relentlessly. We must allow ourselves to learn as much from the students about how to best teach them as they learn about the particular subject being taught. I firmly believe that student-centered learning and universal design can bridge the gap and greatly improve student success rates, especially for underrepresented populations, and I challenge us all to continue shifting in a way that would ultimately allow equitable educational opportunities and outcomes for all.

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COMMUNITY COLLEGE COMPLETION, SUCCESS, AND DATA

Micara Lewis Sessoms

Introduction

Community college completion and student success are initiatives which institutions are maintaining as the focus of their work. This work was ignited by former President Barack Obama's 2009 proclamation that America will have the highest proportion of college graduates of any nation in the world by 2020 (Boggs & McPhail, 2016). Hearing this, community colleges and various stakeholders began to move into action to ensure their work toward completion and student success was a factor in the former president's challenge. This action included work involving assessing the state of community colleges at the time and formulating recommendations on how to move forward in the years to come. While a number of recommendations were made, and questions raised as to whether or not community colleges are equipped to accept the college completion and student success agendas, one thing became evident in the conversation: educating the country must involve community colleges.

While it is obvious that community colleges must be included in contributing to educating America, there is much concern over how these institutions will have the capacity to do so when they are focused on being institutions of access. Access is how community colleges have established the identity of being institutions with open doors. Access is also how community colleges are able to serve students who are often underrepresented and in need of a gateway to higher education (Boggs & McPhail, 2016). Community colleges take a number of measures to ensure institutions are able to maintain the open door identity while adhering to the completion agenda and student success. These measures are often documented through various data points. When using data to demonstrate how community colleges are moving the needle in the completion agenda and student success, three issues around data should be considered. Those three issues are: how community college data defines completion and student success, the importance of creating multiple ways to measure completion and success, and data quality.

Defining Completion and Student Success

Completion and success for community college students mean different things for each student. Community college students may extend the time to credential completion due to attending part-time and balancing other commitments with school. Additionally, community college students enrolled

in highly sought after occupational or career and technical programs are, at times, able to obtain just the right amount of credits in a program required to obtain employment (Torraco, 2008). Torraco shares how the various ways community colleges measure completion creates a challenge in evaluating programs. Some curriculum programs have clear ways to measure completion and success due to accreditation requirements while others continue to decide how to adequately define completion and what constitutes success. Since programs measure the two in different ways, not only can program evaluation be a challenge, but determining which data defines completion and success can be an issue.

The American Association of Community College's (AACC) 21st-Century Initiative was launched to support the improvement of community college completion rates. The recommendation outlined in *Empowering Community College to Build the Nation's Future: An Implementation Guide* (2014) to "increase completion rates by 50% by 2020" (p. 8) calls for institutions and states to make deep commitments to this work. There are six strategies to support this recommendation designed to move the completion-rate needle. Those strategies are for community colleges to 1) publicly commit to explicit goals for college completion, 2) create pathways, 3) expand prior-learning assessments, 4) devise completion strategies on both ends of the college experience, 5) establish guarantees for seamless transfer, and 6) implement automatic graduation and reverse transfer programs. While these strategies to support the completion recommendation goal are robust, they must include full consideration of the different ways students define completion. It is imperative for community colleges to ensure data is congruent with how students define their own completion and success.

AACC's Implementation Guide (2014) documents the work to support student success and completion in North Carolina. The North Carolina Association of Community College Presidents and the North Carolina Association of Community College Trustees are taking steps to expand the student success landscape. The establishment of SuccessNC provides evidence of the work being done throughout the state to focus on increasing community college student completion, raising the percentage rates of both transfer and persistence. For North Carolina, a 45% baseline of completion was established through a fall 2004 cohort, and "the goal is a six-year success rate of 59% for the fall 2014 cohort" (p. 9). If the state reaches this target, the number of completers has the potential to double by the year 2020. This is just one example of how community colleges are working to answer the nation's call to ensure student success.

Create Multiple Completion and Success Indicators

As a community college professional who recognizes that students define their completion and success in multiple ways, I often wonder if there is value in considering the many ways to measure the two. What would completion rates demonstrate if community colleges factored in the student who found value in earning a few credits in order to get a job vs. completing an Associate's Degree? What should be said about the student who finds success in finally finishing the Level 1 English class after taking the class twice? If community colleges are invested in every student who enrolls in our institutions, it is imperative that consideration is given for how students view their own completion and success. There is value in assessing those points and collecting meaningful data around them.

While choosing standards for performance is critical, many prescribed indicators of successful community college performance are exclusive of the true image of how students perform. There are leading and lagging indicators of performance at community colleges which omit the student who identifies success in a way that may include finishing one course which increases their income by five dollars and may make a difference in what they are able to provide for their family. Creating multiple ways to view completion and success is important to the story community colleges share about the work done that changes the lives of the people served.

Ensuring Data Quality

With 2020 being just a few short years away, have community colleges moved the needle farther to closing the loop on the recommendations of AACC? Could it be the needle has moved significantly and, in some instances, that the data lacks a true reflection of the progress made thus far? An important factor in using data to tell the completion and success story is to examine its quality. Data is key to tell the story institutions want to tell about what is being done. However, community colleges must take the measures necessary to ensure the story being told is accurate and lacks misleading information. This is true regardless of the purpose of the data and the audience it is being collected for and presented to.

Phillips (2018) shares the importance of data quality to community colleges making informed decisions. Data quality involves making sure data is entered accurately and reported in a way that is understandable for the intended audience. Compromises in either one of those processes can lead to incorrect messages received about the data. Audiences interpreting the data can come to their own conclusions, which may not always be accurate.

Making accuracy a priority, community colleges should consider making the necessary investments to guard data quality. This includes investments in resources and effective strategies to clean data in an effort to avoid misrepresentation (Phillips, 2018). These resources to clean data often involve human resources in the form of data experts who are able to identify existing issues and ensure data is accurate. Also, faculty and staff engaging in professional development on effectively presenting data for the intended audience is essential. Effective presentation of data contributes to communicating the correct message about the data to the audience. Data should be presented in a way that captures the attention of the audience and creates a sense of urgency to move to action. Taking measures in data quality increases the chances that data is accurate and useful.

Summary

The success of community colleges is largely measured by the data collected and shared. Data tells the story about how community colleges are performing based on various indicators. In order for community colleges to tell their stories accurately they must continue to engage in conversations with organizations such as AACC, and Achieving the Dream (AtD), policy makers, and others who are invested in supporting the role community colleges have in the completion agenda and student success. As we move, how community college data defines or determines completion and student success must be incorporated into the conversation. Additionally, community college leaders must continue to reflect on the necessity to create multiple ways to measure completion, particularly considering that students enter the doors for various reasons. It is imperative to make healthy investments in data quality. Consideration of these factors will allow the nation to see just how far community colleges have progressed.

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ONLINE INTERACTIVE MODULES FOR CHEMISTRY COURSES AT DURHAM TECHNICAL COMMUNITY COLLEGE

Caroline Sloan

Online courses in the sciences are flourishing in the current education landscape. Most of these courses consist of videos and slide-based presentations. These videos may widely vary in production value, from simply a recording of the classroom lecture to slickly produced videos by commercial studios. Textbook publishers are usually responsible for slide-based presentations, which include figures, equations, and questions directly from the subject text.

E-learning industry authoring tools, such as Adobe Captivate or Articulate Storyline, can enable interactive online learning modules, where students can delve into topics that confuse them. Instructors can strategically control the flow of information, progression of the course materials, and capture useful information about the learning experience. Web-based Learning Management Systems (LMSs) are well-equipped to accept and exchange information with these modules.

At Durham Technical Community College, we try to minimize the cost to students in the online chemistry classes. The textbook used is written by an instructor at Durham Tech, Dr. Mark Matthews, and it costs $25 for first semester and $21 for the second semester book. Also, we use Sapling homework system for deploying homework, quizzes, and exams, which is $40 per semester and also comes with the option of the instructor's e-book. The textbook is Dr. Matthew's notes for the class with problems worked out in between the concepts and problems at the end of the chapters.

The textbook is very plain with only black and white pictures, and I thought that I could improve explanations of the more challenging concepts by adding color pictures, websites, videos, and interactive material into the chapters. I applied and received a Durham Tech Foundation Grant to develop interactive modules for each of the chapters using e-learning industry authoring tools software. I also included quiz questions in each of the modules, but unfortunately Durham Tech's version of Sakai does not let instructors record those grades into any format.

The modules are helping students! I have gotten many positive comments from my students and am developing new modules for the first semester general chemistry class (having started with the second semester general chemistry class). The modules probably helped improve my second semester general chemistry students' exam grades. Also instructors have started giving

my modules out for weather-related cancellations in their classes, and their students have started asking for the other chapters.

I surveyed my students in fall of 2017 and found that, of the 5 students who took the survey out of 19 students, all 5 students used more than half of the online modules. Also all 5 students agreed or strongly agreed that "this type of online interactive module helped me learn the course material since this is an online class." They also agreed "this type of online interactive module helped me to understand the course material because this is an online class."

I received some anecdotes from students who said, "The online interactive modules helped clear up things that were unclear to me from the reading." From a different student: "I thought they were a great tool for success in your class. After studying the assigned book reading, the modules were a wonderful interactive way to reinforce what the book was covering."

In my classes the modules possibly raised the exam scores. In summer 2017 before the modules the exam scores were (n = 15 students):

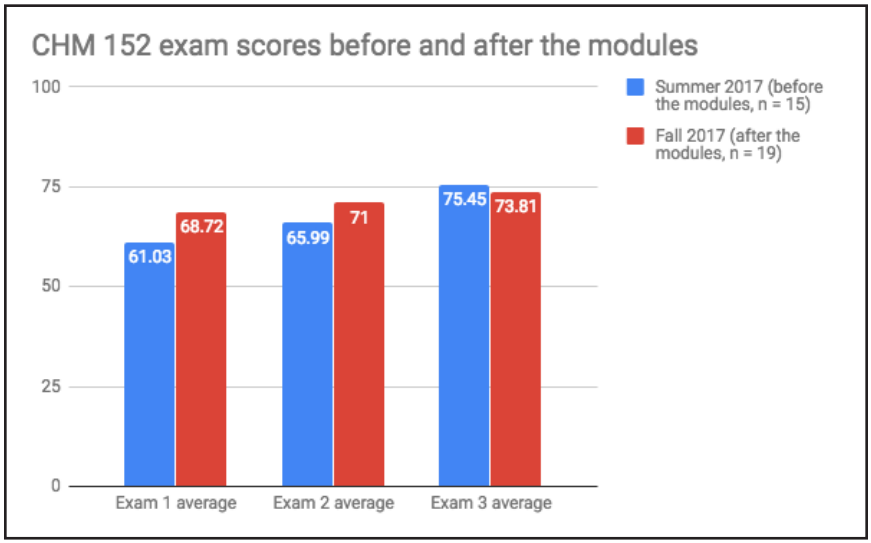
Exam 1 average: 61.03
Exam 2 average: 65.99
Exam 3 average: 75.45

And after the modules in Fall 2017 the exam scores were (n = 19 students):

Exam 1 average: 68.72
Exam 2 average: 71.00
Exam 3 average: 73.81

The reason that the exam 3 average was comparable for both classes might be due to the fact that I did not develop modules for the last two chapters of the course—which is what exam 3 covered.

Here is a graphical representation of these scores:



These online interactive modules that I have developed seemed to have helped my online students learn and understand the chemistry material. They have probably raised their exam scores as well. I will give these online interactive modules to anyone who is interested in teaching (or learning) some chemistry! Just contact me at sloanc@durhamtech.edu, and I can send you the completed links. Here is a preview chapter about liquids and solids: https://sakai.durhamtech.edu/x/Z9CrsP.

SEE, YOUR TEXTBOOK IS NOT SO SCARY!

Olga Hogrefe, Robbi Muckenfuss, Scott Stauble, and Natasha Butz

Introduction

The first days of class on a community college campus are generally filled with a lot of activity and excitement. Students are busy learning the location of their classes, meeting new friends, and buying their textbooks. The hefty books move from the bookstore shelves to backpacks, and students are faced with reality as they open the books for the first time and discover the numerous words and dense knowledge that await them. As that textbook is opened for the first time, the student becomes aware of the challenge of reading this new material and trying to learn it for tests in the quest to successfully pass the class. A student in a Biology class might open their textbook and note the number of chapters and extensive topics that are covered. A student in a Chemistry class might open their new textbook and discover so many vocabulary words tied to the course that it almost feels like reading a foreign language. A student in an Anatomy class might open the cover and realize high school reading habits will not be enough to learn the material.

The fact that students do not read their textbooks as much as they should is well-known (Aagaard and Skidmore, 2009). It is also known that higher average scores are associated with reading textbooks (Braun *et al.,* 2009). The science faculty have been concerned that students do not use their textbooks effectively, and this can impact the students' overall success in science classes. A group of Durham Technical Community College faculty came together to make it their goal to support students with reading strategies in order to improve their success in science courses. The faculty spent some time researching reading strategies that could help students learn and understand the material in the textbooks and course materials.

Who Are We and What Was the Purpose of This Study?

During fall 2017, a Faculty Interest Group (FIG) was created, consisting of four participants: a chair/instructor of Developmental Reading and English, two Biology instructors, and a Chemistry instructor. The initial purpose was to review and implement strategies to improve students' comprehension of scientific texts. Making students more comfortable with scientific texts and encouraging them to read beyond lecture presentations was central to the goal for this FIG group.

Each instructor had their own reason for joining the FIG. Table 1 lists instructors' names, their reason(s) for participating in the FIG and reading strategies as well as the courses where the strategies were implemented.

Table 1. Who are the authors, why did they join the Reading FIG, and what were they doing as a part of the FIG.

FIG participant	Robbi Muckenfuss	Natasha Butz	Scott Stauble	Olga Hogrefe
Role in Durham Tech	Chair/instructor, Developmental Reading	Instructor, Biology	Instructor, Anatomy and Physiology	Instructor, Chemistry
Reason for joining the FIG	"To offer support and suggestions to the science faculty whose students are struggling with reading."	"To make students more engaged in the classroom, to show them how and why they need to read the textbook."	"To find a way for students to get the full use of their materials in order not to miss out on the depth of knowledge they could gain with more focus on their text."	"To find a strategy that assures that students read the textbook before they come to class and to have a way of checking that they did."
Reading strategies chosen/proposed for a science class	Proposed multiple strategies to pick from	Vocabulary/ Examples sheets, "Shrinking outline", "Say something", "Concepts first" assignments	"Terms to Know" sheets	Vocabulary/Examples and Vocabulary/ Concepts sheets
Science courses where strategies were implemented (during and beyond the FIG)	N/A	BIO-111 General Biology I	BIO-169 Anatomy and Physiology II	CHM-094 Biological Chemistry, CHM-152 General Chemistry II CHM-151 General Chemistry I
How the strategy implementation outcomes were assessed	N/A	Exam grades, classroom observations, student survey	Exam scores, quiz scores, lab practical scores, overall class scores, student survey	Exam scores, overall class scores, mid-semester survey, the classroom atmosphere assessment

In fall 2018, the FIG participants researched strategies that could improve students' reading comprehension and boost their interest in textbooks and course materials. BIO-111 and CHM-094 instructors also conducted preliminary surveys to pinpoint the reasons for students' reluctance to read their textbooks and laboratory handouts.

Results of a BIO-111 survey indicated varying frequencies of how often students read the course textbook. About one-third read once a week, about one-quarter read twice a week, and the rest of the students reported that they never read the course textbook. When asked "What is stopping you from reading?," approximately one-third of the students answered "I do not have time," and another third chose "I do not understand."

About 40% of all CHM-094 students claimed that they read their textbook at least twice a week. About 20% said they read the textbook once a week, another 20% read the textbook once in two weeks, and about 15% reported that they read the textbook once a month or never (and a few did not answer). The students who read the textbook less than once per week were asked to name the reason that prevented them from reading. Not having enough time was a leading reason. The other two reasons given were lack of confidence ("I know that even if I start reading the chapter I will not understand anything,") and a discouraging previous reading experience ("Read it few times, did not understand anything, gave up").

Data Collection and Analysis

Information presented in this paper in no way constitutes pedagogical or scientific research. It is only a description of our experience when implementing several reading strategies in our classrooms and should be treated as such.

All three science instructors participating in the FIG chose at least one strategy to implement during the spring 2018 semester and then attempted to evaluate the impact of the strategies on students' academic performance, students' behavior, and classroom atmosphere (see Table 1). Each instructor chose his/her own methods for assessing the results. Therefore, the assessment results for each course are presented in different formats.

Most of the students taking CHM-094 and BIO-169 classes have a common goal of pursuing a career in a health-related field, but the student populations are very diverse in terms of age, gender, study habits, previous education, and academic paths.

The student population of BIO-111, CHM-151, and CHM-152 typically consists of both science majors and non-majors as well as high school students.

BIO-111

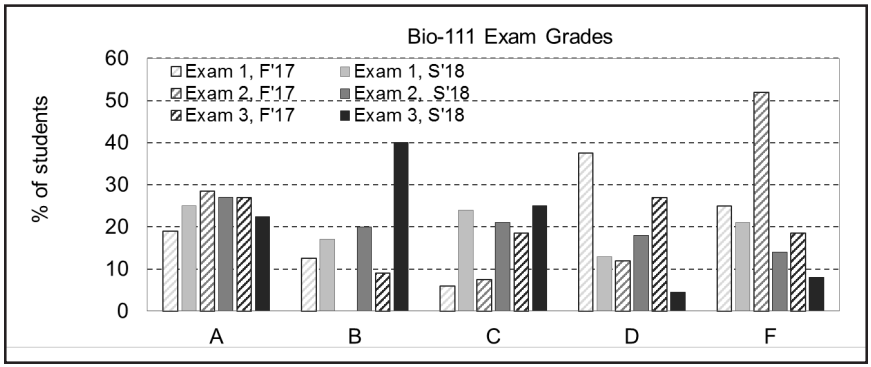
The strategies had two different purposes: to improve students' understanding of the vocabulary (vocabulary/examples sheets) and to improve reading comprehension ("shrinking outline," "say something," and "concepts first").

The assignments and activities given to students throughout the semester included:

- two vocabulary sheets
- dissecting an article using the main steps of the scientific method ("shrinking outline")
- editing two pages of text on a given topic ("concepts first")
- analyzing three seminar reports ("say something").

Students' exam grades from fall 2017 and spring 2018 semesters are shown in Figure 1. The presented graph clearly indicates a significant decrease in the percentage of students who received F's for all three exams and who received D's for Exams 1 and 3. It also shows a corresponding increase in the percentage of students who received B's and C's for all three exams as well. One may attribute an improved exam performance to the implementation of reading strategies during the spring 2018 semester, but in order to draw definite conclusions a longer and more detailed study is needed.

Figure 1. BIO-111 students' exam letter grades for a pre-intervention semester (striped bars) and an intervention semester (solid bars). The total number of students during fall 2017 and spring 2018 was 20 and around 50 respectively.



A qualitative assessment of the impact from implemented reading strategies was done as well, and the instructor concluded from survey results that spring 2018 students were more confident, more engaged in the classroom, and more involved in the learning process.

BIO-169

A "Terms to Know" vocabulary sheet was created for each chapter covered in BIO-169. Rather than just defining terms, students were asked to write sentences "of their own creation" that correctly used the terms. This format allowed for some creativity in completing the assignment. The sheets were assigned for homework and were graded.

Students' exam grades from spring 2017 and from spring 2018 semesters are shown in Figure 2. Lab practical scores went up by 4-5 points, but there were no significant differences between the two semesters for exam, quiz, and overall scores.

Figure 2. BIO-169 students' average and median exam scores for a pre-intervention semester (striped bars) and a post-intervention semester (solid bars). The total number of students who took the exams ranged from 53 to 55.

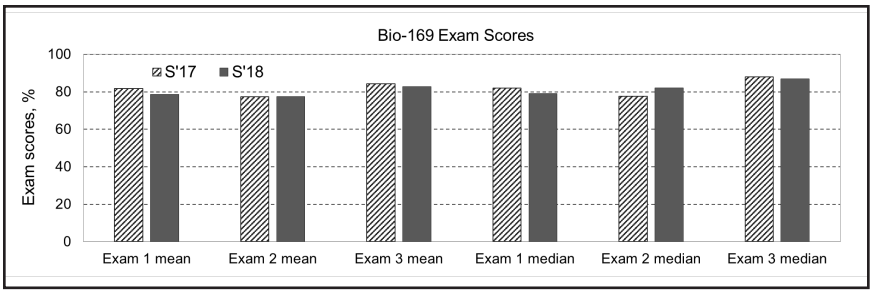
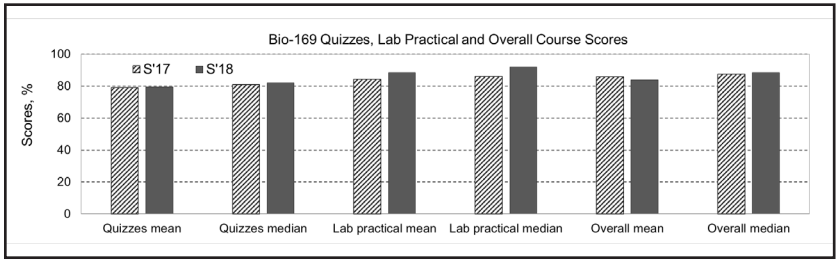


Figure 3. BIO-169 students' average and median quiz scores, average and median lab practical scores and overall average and median course scores for a pre-intervention semester (striped bars) and an intervention semester (solid bars). *Note: the quiz scores were normalized to 100 points to maintain consistency.*



The results of a student poll conducted at the end of the spring 2018 semester showed that 45% of all the students thought that the vocabulary practice was helpful, and 45% thought that they were somewhat helpful. 73% of all the students thought that vocabulary sheets should be used in future semesters.

CHM-094

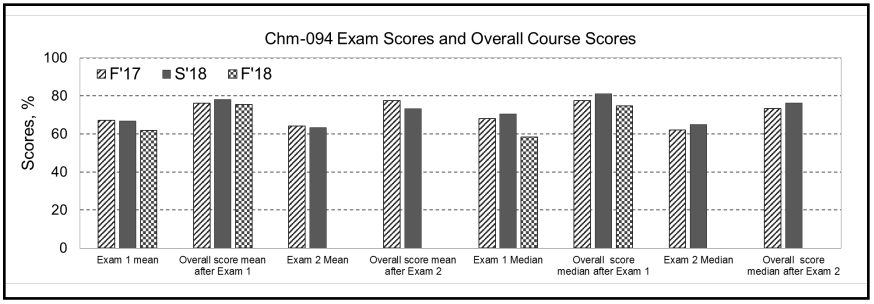
Students in CHM-094 received "vocabulary/examples sheets" on the first ten topics presented in the course. The sheets required students to read the introductory material for each chapter and were intended to help students to become familiar with basic terms and definitions and prompt them to answer questions based on information explicitly presented in the text. These sheets were a pre-reading assignment that exposed the students to information presented in lecture. The sheets were designed to be helpful with increasing learning efficiency (Heiner and Rieger, 2012) and to enable students to do higher level cognitive work during class time (Brame, 2013).

The first four vocabulary sheets were on topics tested on Exam 1, and the last six were on topics tested on Exam 2. The sheets were assigned to students a few days before each new lecture topic. Questions and activities on those sheets were based on several assigned textbook pages. The answers were not provided. Several designs and types of assignments prevented repetitiveness and possible student boredom. In order to assure that students read the textbook before each new topic was presented and discussed in the classroom, the vocabulary sheets were distributed at the end of selected lectures and were due right before the next lecture with no due date extensions allowed. The sheets were treated as a required part of the homework.

Assigning the "vocabulary/examples sheets" not only gave the students a purpose and an incentive for reading, but they also gave the instructor a tool to see if students actually read the textbook before starting a new topic in class.

The percentage of students who completed the vocabulary sheets by their due dates ranged from 72% to 90% in spring 2018 and from 80% to 93% in fall 2018. Students' exam scores for the first two exams from fall 2017 and spring 2018 semesters, as well as average and median overall course scores calculated after Exam 1 and Exam 2 are shown in Figure 4. Inspired by a somewhat positive outcome of implementing the "vocabulary/examples sheets" strategy during the spring 2018 semester, the sheets were used again in CHM-094 during the fall 2018 semester (after the FIG has completed its work). The students' academic performance information at the time of Exam 1 from fall 2018 is also included in Figure 4. The information corresponding to the time of Exam 2 of the fall 2018 semester is not shown since this paper was written prior to Exam 2.

Figure 4. CHM-094 students' average and median Exam 1 and Exam 2 scores for a pre-intervention semester (striped bars), the first intervention semester (solid bars) and the second intervention semester (checkered bars). The overall average and median course scores calculated after Exam 1 and Exam 2 were taken are shown as well. The total number of students who took the exams ranged from 49 to 65.



Although the graph in Figure 4 shows a slight increase (2-3%) in median exam scores as well as in median overall course scores in spring 2018 (compared to fall 2017), a t-test on the exam scores data confirmed that the differences between the two semesters was statistically insignificant. The results from the three-semester score comparison show vocabulary sheets did not have much of an effect on students' academic performance.

That being said, the results of the poll conducted after Exam 2 in spring 2018 showed an overwhelmingly positive feedback from students regarding the

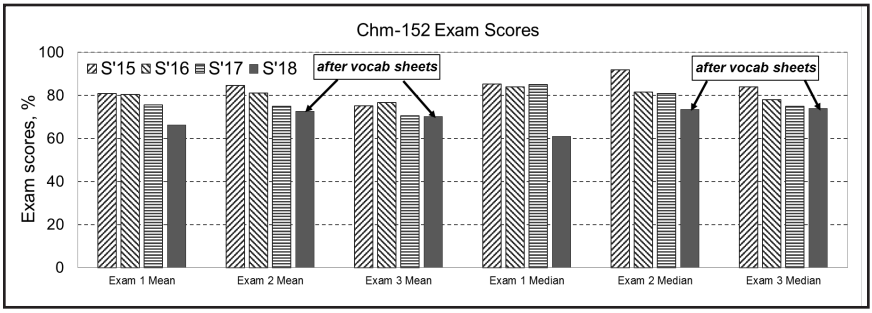
vocabulary sheets: 83% of the students said that the sheets had helped them to understand the material better, 57% reported that the sheets helped to increase their confidence level, 63% felt less intimidated by the textbook, and 76% said that the sheets should be made a permanent component of the course. In addition, the instructor received many requests to continue with vocabulary sheets for the rest of the course. An improvement of classroom atmosphere was obvious as well: more students answered in-lecture questions and asked more advanced questions. Students also looked interested during lectures and incorporated vocabulary words when talking to each other after lectures and during labs.

CHM-152

General Chemistry II (CHM-152) is more advanced than CHM-094, and at first, no reading intervention was used. The original thought was that CHM-152 students already have good study habits and would not benefit from simple reading strategies. However, in spring 2018, Exam 1 scores were much lower than those from previous semesters (Fig. 5), and it became obvious that many students needed some assistance developing better studying habits (including pre-lecture textbook reading) and that simply listing helpful learning strategies was not effective. Vocabulary/Concepts sheets seemed like an appropriate strategy for this level of class. These were based on preassigned textbook pages but were more complex and challenging than for CHM-094 because they required not only reading the textbook before a corresponding concept/topic was discussed in class but also included some analysis and synthesis of the material read. Four sheets were assigned in the CHM-152 class (two before Exam 2 and two before Exam 3). The percentage of students who completed the vocabulary sheets by their due dates ranged from 72% to 89%.

The exam scores for Exams 2 and 3 from spring semesters 2015-2018 are shown in Figure 5.

Figure 5. CHM-152 students' average and median exam scores for three pre-intervention semesters (striped bars) and an intervention semester (solid bars). The total number of students who took the last exam ranged from 31 to 35 for the last three semesters and was 13 for the first semester.



There was no reading intervention before Exam 1 (spring 2018), and the large drop in Exam 1 scores in the spring 2018 semester compared to previous semesters is noticeable. That was puzzling since the course structure, the amount of the material covered, and the exam difficulty level did not change from semester to semester, and the instructional format and methods only improved compared to the first semester. It was suggested that perhaps the student population in spring 2018 was different from earlier semesters, and the students would potentially benefit from structured assignments based on textbook reading. The results from Exams 2 and 3 show that the gap between exam scores from earlier semesters and spring 2018 decreased after Exam 1. The vocabulary sheets could have helped, at least partially.

CHM-151

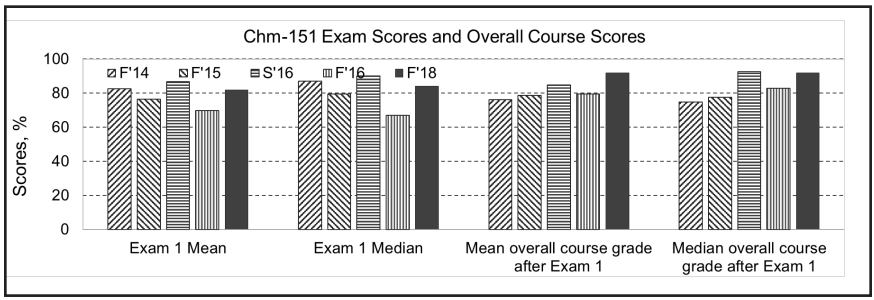
In fall 2018 (after the FIG completed its work), the CHM-151 instructor decided to use the "Vocabulary/Concepts" sheets from the very beginning. Five vocabulary sheets were developed and assigned on the topics covered in Exam 1.

The exam scores for Exam 1 from fall 2014, fall 2015, spring 2016, fall 2016 and the Exam 1 scores from fall 2018, as well as average and median overall course scores calculated after Exam 1, are shown in Figure 6. The percentage of students who completed the vocabulary sheets by their due dates ranged from 92% to 100%.

Comparing the average Exam 1 mean and median scores from pre-intervention semesters and spring 2018 semester showed a slight increase of approximately 3% and large (about 10%) increase in the overall median course score calculated after Exam 1 was graded. Just like with CHM-152, the course structure of CHM-

151, the amount of the material covered, and the exam difficulty level did not change from semester to semester, and the instructional format and methods only improved compared to the first semester. Although the conclusion was also similar, the "student population was different during the last semester," the implication was the opposite one: the students were more responsible, motivated and had better study habits. It was based on the fact the overall course grade (which includes contributions from exams as well as from lab, homework, and quizzes) was much higher for the last semester than for the previous ones. The vocabulary sheets were not used after Exam 1.

Figure 6. CHM-151 students' average and median exam scores for four pre-intervention semesters (striped bars) and an intervention semester (solid bars). The overall average and median course scores calculated after Exam 1 was taken are shown as well. The total number of students who took Exam 1 ranged from 37 to 78 and was 19 for the first semester.



Conclusions

BIO-111 students' exam grades improved during the semester when several reading strategies were used. During that semester, students also reported increased levels of confidence and the instructor noticed that they were more involved in the learning process.

BIO-169 students' lab practical scores increased noticeably during the semester when the "Terms to Use" sheets were used. The majority of students said that the sheets were helpful or somewhat helpful, and about three-quarters of the students thought that the sheets should be used during future semesters.

The assessment of the impact of vocabulary sheets in an introductory level chemistry class (CHM-094) showed that, although their use had almost no effect on the test results during the first semester and no effect at all during the second semester that they were administered, they seem to make a positive impact on the classroom atmosphere and the level of student engagement in

the classroom. Based on that, vocabulary sheets should be and will be used in introductory-level chemistry classes.

While using the vocabulary sheets seems to result in a slight academic performance improvement for CHM-152, the score increase for CHM-151 did not appear to be related to the use of the vocabulary sheets. An impact on the classroom atmosphere for CHM-151 and CHM-152 was hard to evaluate since the atmosphere in those higher-level chemistry classes is generally always very positive and students are very focused on learning.

The FIG experience showed that there is not likely to be a "magic tool" for improving academic performance. While an instructor's efforts may result in reducing a student's fear of the taught material and help make a classroom environment more pleasant and conducive to learning, a statistically significant improvement in student performance comes from the student being prepared to take a class and a willingness to dedicate a significant amount of time to studies outside the classroom.

Another important conclusion is that when trying out a new teaching technique or method, one semester of implementation is not enough to quantitatively evaluate a change in students' academic performance. A method that is seemingly working in one semester may not work in the next one or vice versa. One semester of implementation may be enough to assess the qualitative impact of an instructional strategy or a technique.

In the end, the students reported they appreciated the support of the reading strategies, and many students felt the use of the strategies should continue. Thus, the Faculty Interest Group (FIG) demonstrated that the "science book isn't that scary."

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THE SCHOLARSHIP OF TEACHING AND LEARNING (SOTL): THE IMPACT OF PEER-LED LEARNING ON STUDENT ENGAGEMENT

Danielle Johnson

Introduction

In my tenure as an adjunct instructor in the Early Childhood Education program with Durham Technical Community College, I have noticed in every class there is a small number of students who limit their interaction and involvement in the course. Such students avoid participating in the course and attempt to "fade into the background." These students typically receive grades lower than their peers, are disconnected, and lack enthusiasm for the course content. One of my goals as an educator is to equip each student with the skills and opportunity to thrive in each course I teach. I believe by infusing peer-led learning opportunities in my course students will gain experience in group and team building that can support them in both their academic and professional journey.

The opportunity to apply for SoTL served as the catalyst for me to delve deeper into my area of interest. As one of the many resources offered to full and part-time faculty by Durham Technical Community College, "SoTL is designed to provide the framework for a faculty member to analyze, research, and improve their teaching over three semesters," as stated on the TLC website. The award provided access to support throughout the process and upon completion a stipend.

Background

Face-to-face lectures can often be very one-way. There are both external and internal factors that can cause a student to be disengaged and not fully interact with peers or the instructor. My SoTL findings were implemented fall 2017 in EDU 144 (Child Development I). The project was designed to create peer-led opportunities that would allow students the opportunity to create a learning environment that was inclusive and responsive. Various strategies and activities were implemented to support the creation of an inclusive peer-led environment.

Peer-led activities consisted of in their groups developing content-specific vignettes. Other activities consisted of role sharing, responding to pre-designed activities, and content "share-out" (providing an overview of an assigned chapter). All group activities and work was done in class. The project design also sought to establish a protocol to aide in formulating student work groups that

would provide students with opportunities to lead and exchange information throughout the semester. An additional project design goal was to create work groups in a fashion that would allow all students to be engaged both in their group and the class as a whole. In preparation for implementing this approach, research on best practices for group dynamics and strategies for engaging adult learners were examined.

Methodology

During the first week of class students completed a pre-implementation survey designed to capture their attitudes toward student work groups. A post-survey was later distributed to students during the last day of class for the semester. Students also randomly selected shapes out of a plastic bag held by the instructor. The shapes would determine the student work group. These groups were in place for the first four weeks followed by students randomly selecting color strips to identify and assign the next work group. The class size consisted of 14 students allowing either four groups of three students or three groups of four students per group. As previously mentioned, some activities consisted of students as a whole class, while in their groups they developed content-specific vignettes. Students would for example create a scenario consisting of an early childhood aged child, caregiver, and teacher with a focus on early childhood literacy both in the classroom and in the home. I would provide props such as culturally responsive books and facilitate the process. Each group would be provided a different book and once done share with the entire class.

The small group size worked extremely well. It allowed students to emulate the small group approach which is practiced in early childhood classrooms. As the instructor I was able to model for students one of the roles of the teacher in the early childhood classroom, which is to serve as a guide in the facilitation of student learning. As research states, among the many considerations when forming learning groups are group size and membership. The consensus among group theorists is that smaller groups, those of six or less, tend to be more cohesive and productive than larger groups. Therefore, even in a class of 8-12 learners, forming two small subgroups might produce better results for some learning tasks (Imel and Tisdell 1996).

Findings/Outcome

The pre-implementation survey reports showed that 86% (12 of 14) of students reported experience with working in groups prior to the course. The remaining 14% (2 of 14) stated they had not worked in groups prior to the course. 29% (4

of 14) of students reported working in groups did not help them to understand their course work. The remaining 71% (10 of 14) stated working in groups did help them to understand their course work. When asked if they enjoyed working in groups, 93% (13 of 14) of students reported they did, and 7% (1 of 14) reported that they did not. Students were asked if working in a group helped them to connect with their in-class peers, and 93% (13 of 14) reported it did. It was also reported that 93% (13 of 14) of students felt working in a group helped them to learn different perspectives of the course work while 7% (1 of 14) reported that it did not.

Additionally 93% (13 of 14) of students reported feeling supported when working in groups, and 7% (1 of 14) reported that they did not feel supported when working in groups. When asked about course engagement, 86% (12 of 14) of students reported that working in groups makes the course engaging while 14% (2 of 14) reported that working in groups did not make the course engaging.

The post-survey was distributed and collected during the final class of the semester. At that point of the semester the total number of students had decreased from 14 to 12. On the final day of class, 9 students were in attendance. It was reported that 89% (8 of 9) of students enjoyed working in groups for this course while 11% (1 of 9) of students reported they did not enjoy working in groups for the course.

Similar findings indicated 89% (8 of 9) of students reported the group work and activities for this course helped them to understand the course material, and 11% (1 of 9) of students reported the group work and activities for the course did not help them to understand the course material.

A resounding 100% (9 of 9) of students reported working in groups for the course helped them to learn different perspectives on the course material. 78% (7 of 9) of students reported working in groups for the course helped them to connect with their in-class peers while 11% (1 of 9) reported working in groups for this course did not help them to connect with their in-class peers. Another 11% (1 of 9) placed a line between yes and no but did not circle a response. The post-survey responses continued to be favorable. Student responses indicate 89% (8 of 9) of students reported working in groups for this course made the course engaging, and 11% (1 of 9) reported working in groups for this course did not make the course engaging. Positive consensus from students was found when 100% of students reported feeling supported while working in groups in the course. Additionally, 100% of students also reported the course had positively impacted their views on working in groups. Both the pre- and post-survey had a comment section were students could provide additional feedback. There was no additional student feedback on the pre-survey.

However, for the post-survey some students wrote the following:

"I wish we had more."
"Group projects were wonderful for the exception of some participants that did not contribute."

Conclusion and Lessons Learned

I discovered establishing a randomized process at the onset of the semester was beneficial and allowed students to establish group expectations collectively. My role as the instructor during group activities took on the role of facilitator to support the peer-led learning that was taking place. I was pleased that the initial intent of the study was achieved and that an inclusive and supportive classroom environment was established and it was student-led.

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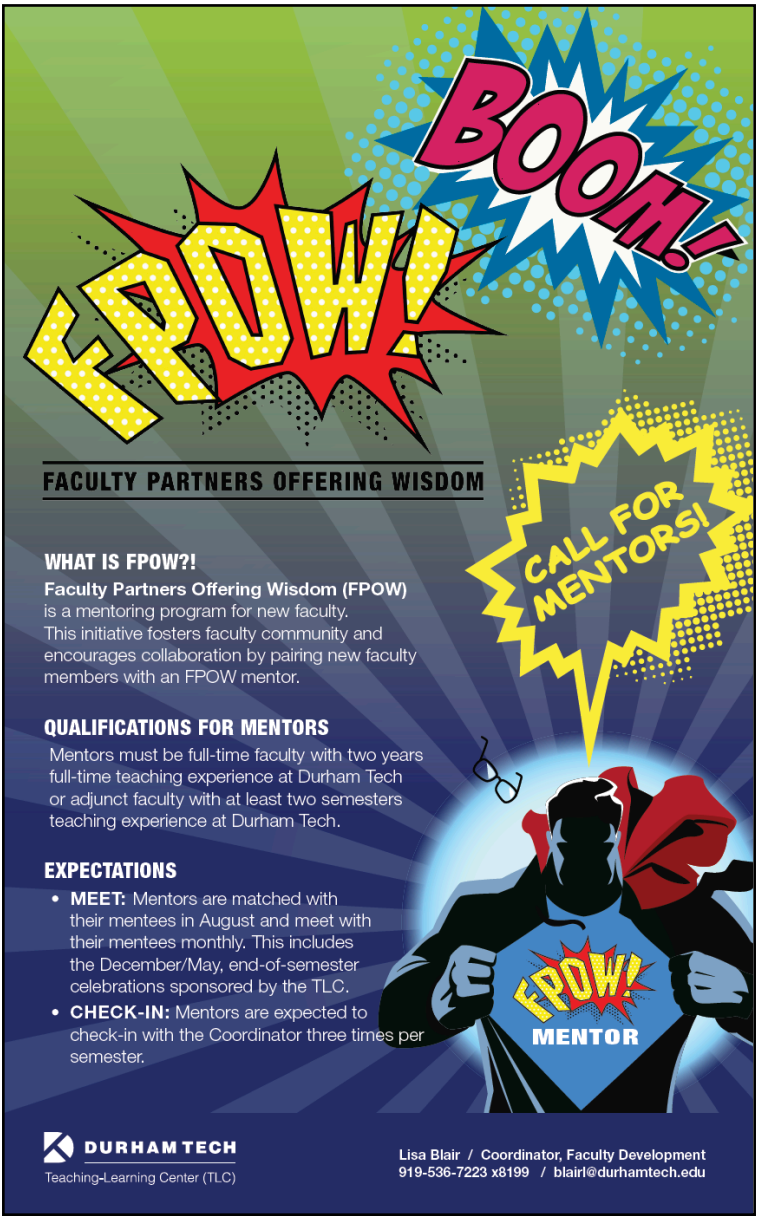
THE HARROWING ADVENTURES OF A COMMUNITY COLLEGE FACULTY MENTOR PROGRAM

Lance Lee



FPOW! This might sound like an exclamation from a comic book, but it also refers to Faculty Partners Offering Wisdom, the faculty mentoring program at Durham Tech. Including the words "partners" in the title shows how we in the Teaching-Learning Center designed the program: seasoned Durham Tech faculty are paired with new faculty in a symbiotic partnership. The relationship is an exchange rather than one of a superior telling a subordinate how to teach and so on. But I'm getting ahead of myself.

Many Years Ago…

Prior to FPOW, Durham Tech's first TLC Director, Mary Ann Grabarek, founded a mentor program. However, it stopped due to competing obligations in the TLC and the lack of resources to manage the program alongside other duties. After years on hiatus, Gabby McCutchen, the TLC Director at the time, and I discussed reinventing the program. We saw a need for faculty to have a welcoming guide on campus, a kind of instant connection at Durham Tech beyond an immediate supervisor and discipline-specific colleagues. As Faculty Development Coordinator, I undertook the responsibility of designing and implementing the program from start to finish, in consultation with Gabby and the TLC Advisory Committee.[1]

Under the auspicious lights of the TLC, FPOW is born.
In spring 2015, I held TLC sessions advertising FPOW and encouraging faculty from all over campus to apply to mentor, and in summer, I worked on organizing training materials, pairing faculty, and thinking more about the FPOW goals. For example, I wanted a program that created connections among diverse groups of faculty. A new English instructor, for example, naturally meets other English instructors; however, they are unlikely to readily connect with someone in our Career and Technical programs. With a diversified connection, I thought both mentor and mentee would get to know distinct areas of the College better and have a robust exchange of ideas, different from their discipline-specific conversations.

In the pilot year, FPOW began on a smaller scale as a program for new full-time instructors only, with hopes to expand to adjunct faculty in future years. I invited all new full-time faculty to the program via email, pairing them with a mentor in my initial email contact. I also introduced myself in person, which included traveling to our Northern Durham Campus.

[1] While I generally carried out the work and will use "I" going forward here, the planning effort was collaborative, and Gabby McCutchen assisted in feedback and implementation at times. Gabby also gets credit for naming the program FPOW. Heather Remley in our marketing department designed the mentor recruitment flyer.

Supermentors in Training!

Nine full-time faculty from various departments participated in the FPOW training in August. There we discussed the intention of the program and its overall design of collegiality, collaboration, and connection. We got to know each other better, looked at best mentoring practices, shared program expectations, and learned about incentives, such as honorariums and copies of the faculty book group selection for fall and spring. In terms of program expectations, mentors were to meet monthly with mentees during the academic year—preferably in person—and check in with me each month or two. There were also two end-of-semester celebrations, one in fall and one in spring, that mentors were to attend with their mentees.

Mentoring Transformations

In subsequent years, I changed the training and structure a bit. I added monthly discussion themes to serve as conversation starters and to give the program a bit more structure. Many mentors reported the themes as being very helpful when meeting with their mentees each month. It provided a reason beyond, "hey, let's meet." The themes included common Durham Tech faculty concerns, such as advising and time management.

I expanded the program to include adjunct faculty in fall 2016. Adjuncts who expressed interest in FPOW at the fall New Faculty Orientation before classes began were paired with mentors who were somewhat similar to them in terms of discipline. While I encouraged diverse program pairings with full-time faculty, I thought adjuncts would benefit more from someone in their area. For example, adjuncts are not on campus for many hours like full-time faculty, and they are not as likely to get to know colleagues even in their immediate area. Furthermore, adjuncts do not encounter certain full-time faculty responsibilities such as advising. Depending on the mentor and mentee pool, pairings were not always perfectly matched to content area. However, I tried to have them connect somehow. For instance, Becky Roehrs in Instructional Technologies served as mentor to online adjunct instructors from various disciplines. Her expertise in online education fit well with these instructors.

Since fall 2015, FPOW has been largely successful. On feedback forms given at the program's conclusion, most participants responded positively. Additionally, several mentoring partnerships last longer than the official one year. For example, English instructor Marina DelVecchio and English for Academic Purposes instructor Rachel Lithman still are in touch periodically years after their participation in FPOW. Their mentoring partnership serves as a good

example of how pairing faculty from different departments can create an ongoing connection.

Mentees such as Deidre Yancey and Tom Magrinat who have passed through FPOW have now become mentors in the program—surely a positive sign of the program's success. To date, 20 distinct full-time faculty mentors from nearly all Durham Tech departments have served as mentors, and 53 mentees from across the College have participated.

THWACK!

Despite the program's success, there are a few challenges. Currently, if a new adjunct faculty member does not attend New Faculty Orientation, they will not know about the program. I would also like to reach those adjunct faculty who may want a mentor a semester or two after starting. In terms of recruiting mentors, some return year to year, some take a break and then come back, and some participate only once, for various reasons, such as carrying out new responsibilities in their primary faculty roles. Faculty who are hired mid-year also present a pairing challenge at times. I try not to have one mentor with an unequal number of mentees, and at times, I have taken on the new hire as a mentee. Finally, funding has not been a challenge in the TLC budget, but if it were, the popular mentor incentives would need reconsideration.

The End?

While a lot of work was done initially to get the program started, now that the structure is in place the work lies in mostly maintenance. As mentioned, there are some challenges and changes to be considered in future iterations of FPOW, but the program will continue to run successfully as long as the TLC has the staff in place to continue its implementation. Last of all, if you have been wondering how to say FPOW this entire time, here is your reward for reading until the end. You pronounce it like the "f" in "food" plus a big "POW"—no separating of the letter "f" as a consonant spoken on its own, please. Say it with me now: FPOW!

CONTRIBUTORS

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Alicia Freeman began her career in 2010 at Eastern Carolina Vocational Center where she served in a variety of capacities during her four years there including Admissions Coordinator, Vocational Evaluator, Counselor, and Program Manager. More specifically, she assisted clients with disabilities to evaluate their interests, aptitudes and abilities to aid them in identifying complementary career pathways. During this time, she also taught self-determination classes to clients with moderate to severe intellectual disabilities. Later as a Vocational Rehabilitation Counselor, she continued to build on these skills by assisting clients with disabilities in finding training options and job placements that fit their unique and diverse abilities. Previously, teaching ACA and currently serving as Disability Services Coordinator at Durham Tech, Alicia continues to be committed to providing a welcoming and inclusive environment with equitable access and resources to facilitate student success among diverse populations.

Olga Hogrefe is an Instructor of Chemistry in Arts, Sciences, and University Transfer. Prior to becoming a full-time chemistry instructor, Olga spent more than a decade doing research in the area of atmospheric chemistry and physics. As a teaching assistant and a part-time and later full-time instructor, Olga has taught chemistry and atmospheric science courses at various educational institutions (a private liberal arts college, two universities and two community colleges). Olga has been teaching at Durham Tech since fall 2014—two years as an adjunct instructor and starting fall 2018 as a full-time instructor. She participates in various activities aimed at improving students' academic performance, including "Metacognition" and "See, Your Textbook Is Not So Scary," two separate FIGs at Durham Tech.

Danielle Johnson serves as the Director of Early Childhood Systems at Durham's Partnership for Children. She is also an award-winning adjunct instructor at Durham Technical Community College and a sought-after presenter and facilitator at national conferences, with special connections to the early childhood movement in Ghana, West Africa. She received a Master's in Education from the University of North Carolina at Wilmington and a Master's in Public Health from Hunter College, City University of New York. Danielle is currently pursuing a Doctorate in Curriculum and Instruction at the University of

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Lance Lee is the Director of Teaching-Learning Center and an Instructor of Spanish in Arts, Sciences, and University Transfer. He began teaching in 2006 as a Graduate Teaching Fellow at UNC-CH, where he obtained an M.A. in Hispanic Literature. He was the 2015 Durham Tech Excellence in Teaching Award recipient, and he has worked full-time at Durham Tech since 2010. When he is not teaching, he is probably getting deeply involved in a new hobby alongside his wife and daughter.

Robbi Muckenfuss is the Chair of Developmental English. She began teaching at Durham Tech as an adjunct instructor in 2001 and then became part of the full-time faculty in fall 2004. In her time away from work, you will find her enjoying time with her three children and husband**.**

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Caroline Sloan is an adjunct chemistry professor at Durham Tech. She is passionate for making chemistry relevant and fun for her students. In 2018, she was awarded the Excellence in Adjunct Teaching Award at Durham Tech. Caroline is also the 2019 chair-elect of the North Carolina section of the American Chemical Society. She has been teaching college students for more than 15 years. In her free time, Caroline enjoys playing board games with her husband and taking her dog on walks.

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