

HELPING DUAL ENROLLEMNT STUDENTS ACHIEVE POST-SECONDARY GOALS:
THE ROLE OF COLLEG ADVISING

A disquisition presented to the faculty of the Graduate School of
Western Carolina University in partial fulfillment of the
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By

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ABSTRACT

HELPING DUAL ENROLLEMNT STUDENTS ACHIEVE POST-SECONDARY GOALS:
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This particular disquisition endeavored to explore a problem of practice within the higher education arena. The topic of dual enrollment programs was chosen as the area of focus. Dual enrollment allows for high school students to take college classes in order to prepare for academic and career goals after high school. For the context of this disquisition, I narrowed focus to the service region of Southwestern Community College in the western mountains of North Carolina (Appalachia).

For the sake of this work I looked at how dual enrollment coordinators could better serve North Carolina's high school students. The Appalachian region was selected for the study because the area has a high poverty rate coupled with a low rate of residents receiving higher education credentials. Based on my own experience as a dual enrollment coordinator in the Smoky Mountains, I drew from a pivotal dilemma that I often faced with my student population.

Every semester I was registering high school students for college classes. What I noticed was that the high school students were not receiving any form of college advising. This was a red flag for me because the high school students were being treated like post-secondary students,

however, they were not experiencing the same college related advising that helped make post-secondary students successful.

A major issue that resulted from the lack of advising was that the high school students did not have an awareness of college policies. One of the biggest examples of this discrepancy was that the high school students did not understand aspects of college life such as drop/add policies. A critical symptom resulting from this lack of advising-especially not knowing the drop/add policy existed- included a high rate of withdraws from college classes. The high rate of withdraws in turn resulted in Fs on high school transcripts, delayed high school graduations, and an inability to transfer dual enrollment course credits to other institutions. Students also were not understanding the overall concept of transferring credits to other institutions, which led to many dual enrollment students taking classes other institutions would not give credit for.

A lack of college advising seemed like a substantial problem to me because I felt that as a dual enrollment coordinator, I had a responsibility to make sure participation in my college's dual enrollment program was not harmful for my dual enrollment students (Smith, 2017). For me, students being unable to graduate high school because of indiscretions made in dual enrollment classes, was an issue that needed addressing from a social justice stand point. Referring to social justice, my driving factor was that all students had a right to be fully informed about their college undertaking by the dual enrollment institution they attended.

My institution was holding awareness orientations and advising post-secondary students, but was not offering those same resources to dual enrollment students. In not advising the dual enrollment population for college readiness the institution was creating imbalance in how it's educational practices were being distributed. The dual enrollment students still had the same performance expectations as post-secondary students.

To correct the issue, I decided to design an advising centered improvement initiative. The initiative laid out a uniform advising structure that was to be administered to a test group of dual enrollment students. The goal of the improvement was to try and fix the symptoms brought on by a lack of advising, mainly withdrawals and not understanding college transferability.

The most tangible way to measure success of the improvement was to see if withdraw numbers decreased amongst the population of students who were advised. I chose this as a success measure because it seemed to be one of the only factors that could be quantitatively tracked in the short-term. Measuring the ability to transfer college classes to other institutions would have required a much larger study that covered a period of at least five years, as juniors and seniors graduated and tried to send their dual enrollment credits to other institutions.

DEFINING THE DISQUISITION IN IMPROVEMENT SCIENCE

Within doctoral programs, it is customary for students to submit a culminating scholarly paper, typically, a dissertation. However, Western Carolina University's doctoral program in Educational Leadership required a disquisition. Aligning with the Carnegie Foundation for the Advancement of Teaching, Western Carolina's Educational Leadership program centered on teaching the art of improvement science.

As defined by the Carnegie Foundation, improvement science was “a methodology for using disciplined inquiry to solve a specific problem of practice” (Carnegie Foundation, 2018). Advancing the scope of traditional learning, the disquisition blended research with practice. Students were asked to identify a problem of practice within their education-based work arena, then design an intervention to improve the situation, and analyze the data to see if this intervention provided the desired outcomes (R. Crowe, personal communication, February 18, 2017).

According to The Carnegie Foundation (2019), there were six core principles involved in making an improvement successful. These principles ensured that positive change occurred in a healthy manner with minimal to no consequence to the system in which the improvement was taking place (Carnegie Foundation, 2018). Figure A pictured on the next page, showed the Carnegie Foundation's six core principles for improvement.

FIGURE A



The Six Core Principles

- 1. Make the work *problem-specific and user-centered*.
- 2. *Variation in performance* is the core problem to address.
- 3. *See the system* that produces the current outcomes.
- 4. We cannot *improve at scale* what we cannot *measure*.
- 5. *Anchor* practice improvement in *disciplined inquiry*.
- 6. *Accelerate* improvements through *networked communities*.

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As seen above in Figure A, the Carnegie Foundation believed that to be a healthy and sustainable change, an improvement intervention must stem from feedback from those it will be affecting. The Carnegie Foundation strived to teach educators these six core principles to foster plans of change that were adaptable and centered from within the organization instead of externally forced on constituents (Mintrop & Zumpe, 2019).

Whereas dissertation writers were referred to as “researchers,” disquisition writers were called “change agents” (LeMahieu, Bryk, Grunow, & Gomez, 2017). The purpose of a disquisition was to improve an existing system. Therefore, when one was writing a disquisition, they were in fact studying the change they were trying to make. The disquisition writer was

conducting research, but they were also researching their own intervention design in practice—thus taking on the role of change agent instead of a researcher (Reeder, 2018).

Improvement science was the heart of Western Carolina University's Educational Leadership program. Within the program, students learned to enact change initiatives that were both sustainable and had a positive impact. The success of an improvement science driven intervention came from following a cycle in which the change agent planned an intervention, carried out the intervention, studied the intervention, and then acted to make necessary alterations on the intervention (R. Crowe, personal communication, February 18, 2017).

Improvement science revolved around anticipating both the positive and negative effects the proposed change would have. The change agent strived to craft the intervention in a way that reduced negative effects, but unforeseen side effects could still occur. These unforeseen side effects were why the change agent had to observe the intervention and make adjustments (LeMahieu et al., 2017).

As a result, the intervention went through several active adjustment cycles. The cyclical nature of improvement science had the intervention in a constant state of growth for effectiveness. Figure B on the next page demonstrated the improvement science cycle of planning, doing, studying, and acting—also known as a PDSA system (LeMahieu et al., 2017).

FIGURE B

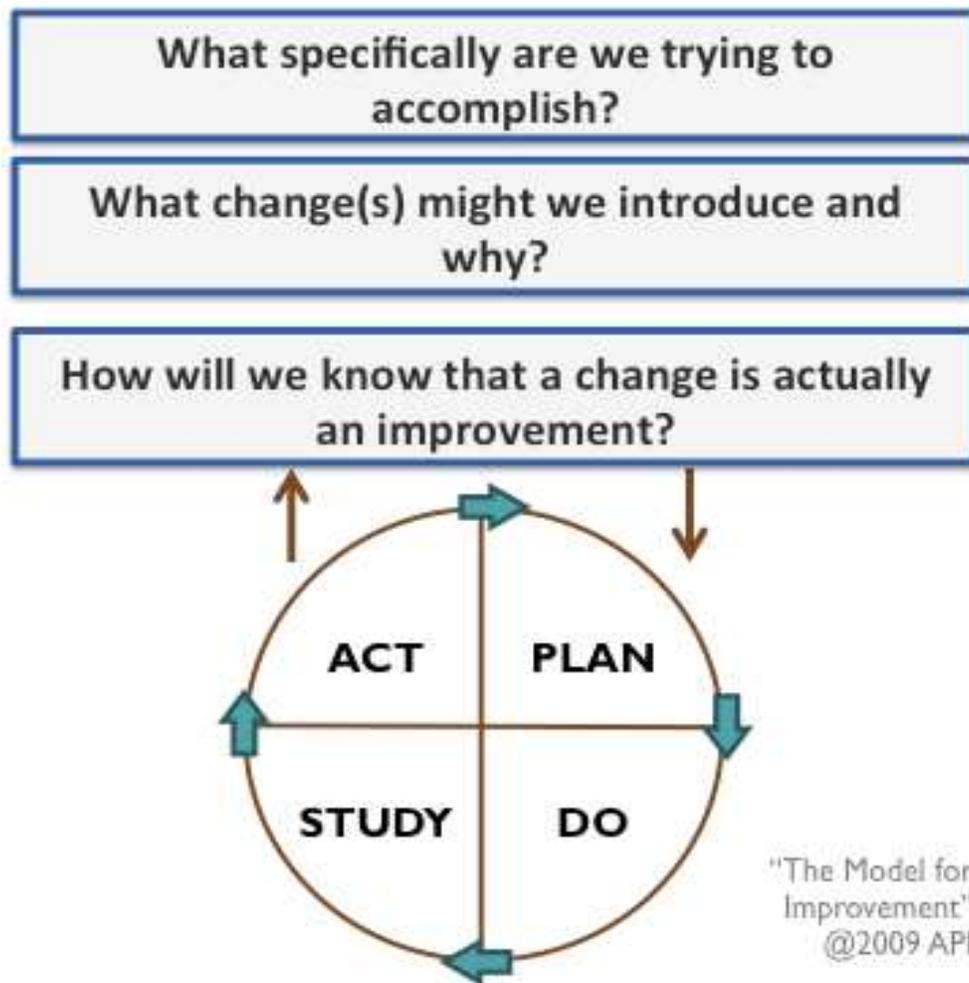


Figure B outlined the successful way to implement and monitor an improvement. The change agent had to first identify what they wanted to accomplish, then establish the changes they wanted to implement to reach their goals. To ensure change happened in a healthy and holistic manner, a benchmark was set to signify the change actions actually improved upon the situation (Lewis, 2015).

CHAPTER ONE: INTRODUCTION

Imagine being a junior in high school and someone asked if you wanted to take college classes for free. How would you have felt about the chance to complete work toward a college degree, and all you had to pay for was textbooks? This is what North Carolina's dual enrollment program, Career and College Promise, offered high school students. Having grown in popularity since 2011, over 50,000 North Carolina high school students took college classes as of 2019. Many of those dual enrollment students, as research showed, had hopes of paying less tuition when they pursued post-secondary degrees after high school (Cross, 2018).

One such student, Elizabeth Knox, was profiled by North Carolina news source, The Daily Tar Heel reporter Jamey Cross in 2018. Cross (2018) wrote about how Knox completed a four-year degree from UNC Chapel Hill in only three years by transferring in credit from dual enrollment classes she took from North Carolina's South Piedmont Community College while still in high school. Knox was quoted as saying, "being dually-enrolled allowed her to learn what UNC would look like for her, (Cross, 2018).

Knox's story is one of accolade and triumph, but it does not necessarily reflect the experience of every student who has participated in the North Carolina dual enrollment program. In 2017 George Leef published a dual enrollment article through education journal, the National Review. Leef (2017), used examples from students at Wake Technical Community College, a community college near Raleigh, NC.

Leef's (2017) article featured one student in particular, Joe Warta. Warta described his dual enrollment experience as "a waste of time." Warta was disappointed because he thought he was gaining useful college credit, but when he enrolled in a four-year institution Warta found that majority of his classes were not able to transfer to other institutions (Leef, 2017).

How was it that Knox and Warta had such different experiences participating in a seemingly uniform state wide program? The answer lay in the advising structure. Knox, completed her dual enrollment at a smaller rural community college which had a dual enrollment population of approximately 590 students (S. Loftis, personal communication, July 5, 2019). Warta's time in dual enrollment was spent at a large, urban community college with a dual enrollment population of over 1,000 students (C. Shields, personal communication, July 22, 2019).

Knox had the luxury of a dual enrollment coordinator who conducted admissions counseling, and provided advising similar to what post-secondary students received (S. Loftis, personal communication, July 5, 2019). The institution where Warta did his dual enrollment relied heavily on high school guidance counselors to monitor students' dual enrollment registrations. Warta did not receive the same level of college related advising that Knox received from her dual enrollment coordinator, and as a result, Warta took several courses that were not transferable to other institutions (C. Shields, personal communication, July 22, 2019). Knox on the other hand was coached through college advising, provided by college staff, on how to make her dual enrollment credits count (S. Loftis, personal communication, July 5, 2019).

Problem of Practice

The dual enrollment system is advantageous for students such as Knox who received advising from college representatives, but it is flawed for students like Warta who were simply monitored by their high school's guidance counselors (Cross, 2018). High school guidance counselors typically had an excellent command of the requirements to get a student high school graduation ready, but it was not within their job parameters to know college policies (Leef, 2017).

Dual enrollment students had access to college courses, but not college advising (Matthews, 2018). Advising was the structural component of college life that provided students with the guidance to make healthy and sustainable choices regarding their college experience (Mintrop & Zumpe, 2018). Assisting students with course selection was advising at the most basic level, true college advising encompassed giving students an understanding of policies, and how course selections related to bigger picture goals. Delivering college advising helped dual enrollment coordinators reduce problems for dual enrollment students.

As seen through Leef's (2017) article, College level advising was something not all dual enrollment students were exposed to. The lack of an advising component was setting high school students up for failure because dual enrollment provided high school students responsibilities they were, in most cases, not fully understanding. Without understanding the full scope of how dual enrollment affected them, the students could not properly utilize the program (Miller, Williams, & Silberstein, 2019).

Understanding the Problem

The community college system did not prescribe advising models for dual enrollment students, and did not require colleges to provide college related advising to dual enrollment students. As seen through the experiences of Elizabeth Knox and Joe Warta, advising did make a difference. Elizabeth was trained on how to make the most of her dual enrollment experience through a dual enrollment coordinator that advised her to think for college. Joe Warta did not receive college related advising, and by his own account, gained very little from using the dual enrollment program.

Joe's negative experience mattered because it signified a weakness in the operating procedures of dual enrollment. Dual enrollment was attractive to students because it provided an

opportunity to take college credits tuition free, and students had the option of earning certificates and college credit which reduced the amount of college coursework they had to pay for after high school. The downfall of the program though was that if students were not advised to think for college, they faced major setbacks that ended up being costly later on.

The Western region of North Carolina especially, was home to many first-generation college students. The first-generation designation meant that the student was the first in their family to attend college. According to the National Association of Student Affairs Professional Administrators, or NASPA, only 27% of first-generation students completed a Bachelor's degree within four years as of 2019 (NASPA, 2019).

A study conducted by NASPA (2019) associated the low completion rate with a lack of understanding of college resources. The study also showed that 20% of first-generation students from 2007 to 2019 completed a bachelor's degree within 10 years (NASPA, 2019). If dual enrollment coordinators in Western North Carolina implemented a college related advising structure, first-generation students could use dual enrollment to prepare for post-secondary education.

Intervention Idea

To amend the problem in the practice of dual enrollment, an improvement intervention was needed (Mintrope & Zumpe, 2019). The problem was that college advising was not being routinely administered to dual enrollment students. The lack of college advising led to a lack of understanding about college policies, and students were causing issues for themselves. Some of these issues included being removed from courses for not attending, receiving an F on their high school transcript for withdrawing, and "wasting" credits because other institutions would not accept the student's dual enrollment coursework.

I saw treating the symptoms as the way to solve the problem. I knew dual enrollment students needed college advising and pinpointing the symptoms helped me to know what to advise on in particular. In observing my students, I knew I needed to increase awareness on attendance policies, consequences of a withdrawal, how dual enrollment classes related back to the high school transcript, and what college transferability actually meant. I surmised that advising for awareness on these subjects would significantly reduce the chances of dual enrollment negatively affecting students.

After analyzing the problem fully, withdrawals stood out to me as the lynchpin. I felt that if I used advising to reduce withdraws, I could tackle many of the symptoms related to the problem. Dual enrollment students were not being advised for college so they did not understand that not showing up for a college class would get them removed from the college class through the withdrawal system. Also, without being advised on how to choose courses students were selecting courses at random.

Since there was not an investment in the course students often did not feel motivated to complete the course if they did not like it. The lack of completion was also giving students withdrawals on their records. In both cases the withdrawals could have been avoided by using the college's drop/add policy which allowed students to leave a course without penalty within the first few days after the course started.

What students were not realizing is that withdrawals from college courses reported as an F onto high school transcripts. Receiving an F prevented the students from using their college class to get high school elective credit. Losing the elective credit caused the students to be behind on high school graduation requirements, which led to some not graduating high school on

time. On the college side withdrawals were not affecting grade point averages, or GPAS, but they did affect the students' ability to be eligible for financial aid as a post-secondary student.

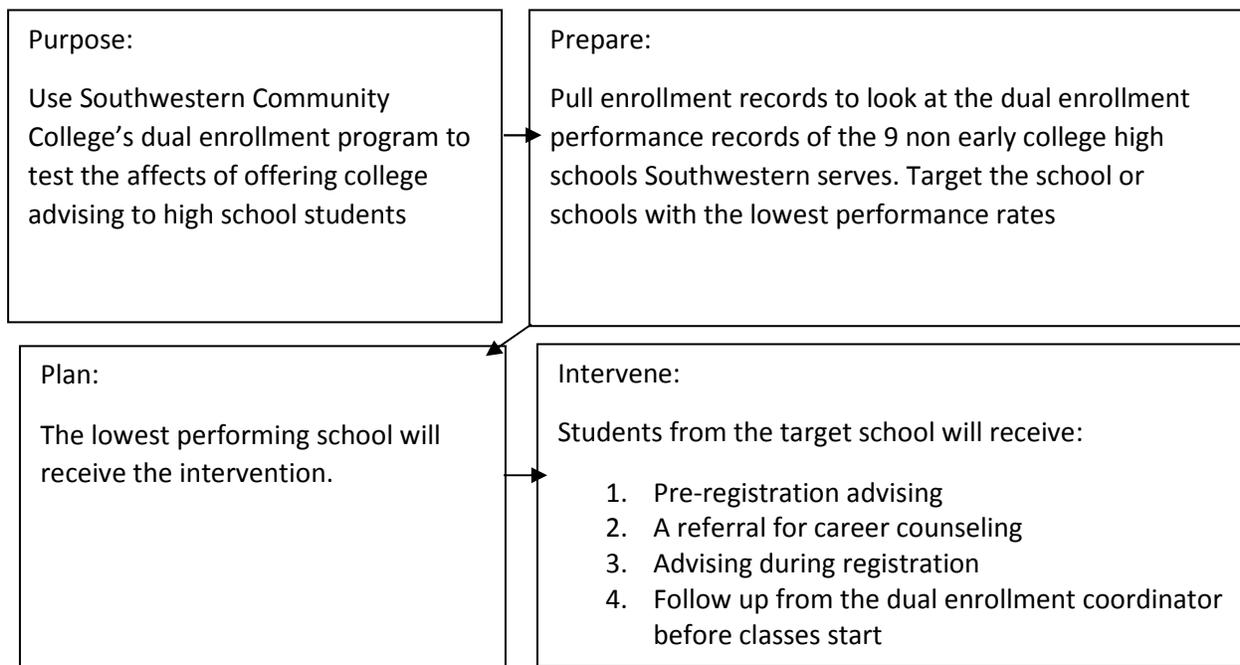
In the larger scope of advising, withdrawals prevented classes from transferring to other institutions so addressing withdrawals opened the door to discuss college transferability at large. The students needed to understand how colleges transferred credits which fed into advising on course selection. In summary, I concluded that if I offering college advising to dual enrollment students should revolve around educating students about withdraws, and helping them pick post-secondary goals to tailor their classes around. Advising students to select classes with intent insured the course credits were useful, but it also helped the student take stock in the course so they would want to complete it.

After my initial research I decided to intervene for the success of dual enrollment students by introducing college related advising alongside dual enrollment course registration. Taking the first-generation student factor into consideration, I also thought it would be advantageous to offer career counseling. I had observed advisors on the post-secondary level who began advising sessions by pinpointing the student's career goals. Speaking with the student about career goals helped the advisor to suggest potential majors, and target classes that would be of more use to the student on their long-term plan. Based on advising research released within the past five years students who had career conversations with advisors had higher college completion rates than students who did not.

Specifically, I wanted to explore intervening in my own practice as a dual enrollment coordinator at the community college where I worked. I sought to provide college advising that would help students understand the implications of aspects such as not attending class, withdrawing, goal setting, and transferring credit to other institutions (Matthews, 2018). Figure

C below outlined the overall intervention design. Figure C was intended to provide clarity on the actual actions taking place to improve the problem.

Figure C



The action plan depicted in Figure C was explained in greater detail later in Chapter Three of the document, which covered the methodology behind the intervention design. Basically though, the intervention was set to target the non-early college high school in Southwestern's partnership with the lowest performing dual enrollment students. The mission I had in mind for the intervention was to reduce withdraws in the target school's dual enrollment population, and have 75-85% of the target school's dual enrollment population be able to identify post-secondary goals.

Local Context

Framing the problem of practice in relevance to my job, it worked best for me to select one target school to test the intervention plan in. In my network of school systems some of the high school guidance counselors were actually versed in college advising, so those students were actively receiving college resources. For the intervention to truly be tested I needed to implement it in an environment that had proven challenges from not providing college resources.

This is why I chose to look at the schools where the dual enrollment students had higher withdrawal rates. Withdrawals were a symptom related to a lack of college advising, so a high number of withdrawal rates at one particular school indicated a need for college advising. Southwestern's dual enrollment program was detailed below in its entirety, as well as how I determined the testing site for my improvement.

Southwestern's dual enrollment program covered 12 high schools total, three of them were early colleges. The nine non early college high schools consisted of four traditional public high schools, two k-12 schools, two alternative schools, and one private religious school. Three of the traditional public high schools had over 100 students enrolled in dual enrollment courses per semester, the other schools in the partnership averaged about 22 dual enrollment students per semester (A. Copeland, personal communication, July 23, 2019).

There was only one school in the partnership that stood out in terms of low dual enrollment performance. Every other school performed consistently in dual enrollment with around 95% of the dual enrollment population from each school successfully completing their dual enrollment courses. In each of these schools there were designated public school staff members who worked with the dual enrollment coordinator, and managed dual enrollment for their school (A. Copeland, personal communication, July 23, 2019).

These schools controlled their dual enrollment population by approving which students could register. In addition, these schools required that dual enrollment students taking online classes reported to a lab period and were monitored while working on their dual enrollment courses. The school with dual enrollment performance issues was one of the largest public high schools in the service region (A. Copeland, personal communication, July 23, 2019).

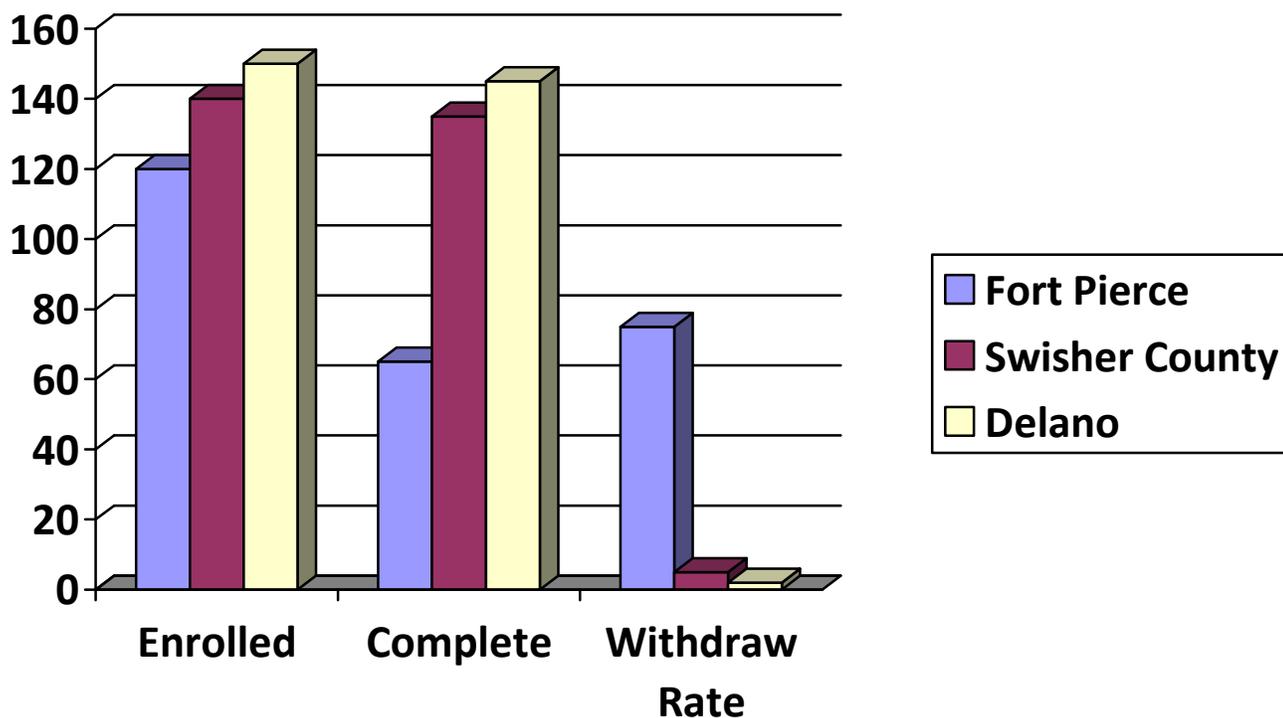
This school did not have a designated official monitoring the dual enrollment program but instead allowed all juniors and seniors to try and register for dual enrollment courses. If the students were in online classes they were not required to attend a lab period. Students in online classes were free to work on the class on their own time. At this particular school there was an 85% withdrawal rate from dual enrollment courses with about 45% being non-attendance withdrawals-removal for not attending the first two days of the course (Everhart, 2018).

Each year upwards of six dual enrollment students from this school faced potentially not graduating because they did poorly in their dual enrollment classes and were unable to receive high school elective credits needed to graduate. Students and parents were often upset with Southwestern when courses did not transfer to other institutions. Discord also emerged when students were removed from their high school sports teams because they did not pass their dual enrollment courses (Everhart, 2018). About 10 students a semester from this institution tried to attend Southwestern after high school and found they were not eligible for financial aid because of withdrawals reported during their time in dual enrollment (A. Copeland, personal communication, July 23, 2019).

Chart I below used pseudonyms for the three larger traditional public high schools to show the differences in dual enrollment performance. Throughout the document the schools are referenced by the pseudonyms listed in the chart to protect the reputations of each organization.

Fort Pierce refers to the school with the lowest dual enrollment performance, and the school at which the intervention took place.

Chart I



The practices at Fort Pierce, such as allowing students to take online dual enrollment classes without previous preparation or a lab period for support, made a substantial impact on the school's dual enrollment completion rates. Students reported that for many, the dual enrollment class they were in was both their first online course, and first college course experience. Students in online dual enrollment courses were not understanding how to access their courses, and were uncertain of who to go to for assistance (A. Copeland, personal communication, July 23, 2019). This problem was perhaps exacerbated by the fact that Fort Pierce did not screen dual enrollment students. A large portion of Fort Pierce's dual enrollment students had truancy issues at the high school, and GPAs that did not meet dual enrollment standards, but the principal had given them waivers to be in the program (M. Ellison, personal communication, July 23, 2019).

CHAPTER TWO: LITERATURE REVIEW

Before delivering the intervention to Fort Pierce's dual enrollment students I had to be sure my intervention was reasonable, and would viably bring about positive change. As a change agent I had a duty to ensure I would not cause further harm to Fort Pierce's dual enrollment students through the change I was bringing. I turned to a multitude of educational studies which centered on completion rates, career coaching, and college advising in support of my intervention.

In assessing Fort Pierce, I noted there was no apparent college minded advising. Advising for college was not being provided by me as the dual enrollment coordinator, or by the high school's guidance counselors. I believed that if I started providing college advising consistently as part of the dual enrollment practice the students would be more successful.

Success to me meant lowering the withdraw rate, and creating college transfer competency. In regards to college transfer competency I wanted the students to match courses intentionally to post-secondary goals, and have awareness on which courses would transfer to other institutions. I wanted to have career conversations with the students in order to shape their post-secondary goals.

Statistics compiled by the U.S. Department of Education showed that 87% of high school students felt underprepared for life after high school (National Center for Education Statistics, 2018). That was an alarming fact when you considered that there were approximately 15.1 million high school students in America, and more than half of them stated that they struggled to identify what they were interested in doing after high school (U.S. Education Commission, 2016). This information was indicative of a lack of advising for post-secondary life which resulted in a generation of drifters, people who could not attach to or sustain viable jobs (Lile,

Ottusch, Jones, & Richards, 2018). Going back to the first-generation student element, those students already feel lost because no one in their family could guide them in college choices. Without guidance provided by college advising, the gap would widen for first-generation students causing them to fall further behind (NASPA, 2019).

Students who encountered difficulty identifying career goals also struggled with defining academic plans. Students in this situation tended to “class hop,” which professionally interpreted meant choosing classes at random with the hope that an interest in a specific subject would emerge (Cowan, 2017). Dual enrollment students who “class hopped” were more likely to withdraw or not attend courses as they lost interest in their courses (Daley, 2017).

There were 1.4 million high school students participating in the United States’ dual enrollment program (National Center for Education Statistics, 2018). About 700,000 of those students received an F on their high school transcript because of a dual enrollment course (National Alliance of Concurrent Enrollment Partnerships, 2018). Putting that figure into perspective, half of the nation’s dual enrollment population faced negative consequences on their high school transcripts because of their participation in the dual enrollment program (Smith, 2018).

One of the biggest reasons behind those Fs was students being removed from college courses through some form of withdrawal on the college side (Fink et al., 2017). There was no withdrawal system on the high school side. State policy mandated dual enrollment students be given an F on their high school transcript for withdrawn dual enrollment courses (Gilbert, 2017). Therefore, if the U.S. wanted to appropriately serve dual enrollment students, dual enrollment coordinators should focus on reducing withdrawal rates (Smith, 2017).

Putting the need for advising for withdrawal reduction into further perspective, the severity of withdrawals was influenced by the student's current grade level (Lawrence & King, 2018). Dual enrollment courses counted on high school transcripts for graduation credits (Smith, 2017). For example, a student in 11th grade, or junior level status, had sufficient time to redeem credits if they withdrew from a dual enrollment course. A student in 12th grade, or senior level status, was in more danger (K. Anderson, personal communication, May 24, 2017). If a student at senior year level needed the credits to be eligible for graduation, the student might not be able to redeem those credits by the graduation deadline (Gilbert, 2017).

Taking college courses in the fall semester, a student could easily redeem credits in the spring semester (K. Anderson, personal communication, May 24, 2017). Taking college courses in the spring semester, a student would have had to complete all necessary credits by the end of that spring semester in order to graduate (Smith, 2017). If the student failed to complete the required credits, that student would have had to enroll in summer school or repeat their senior year (K. Anderson, personal communication, May 24, 2017).

Adding salt to the wound, withdrawals impeded a student's ability to receive financial aid as a post-secondary student (Lawrence & King, 2018). On the community college side, a withdrawal simply resulted in a W; it did not affect the student's college grade point average (Southwestern Student Handbook, 2017). Unfortunately, withdrawals did impact the student's college record in other ways (Smith, 2018). Withdrawing showed a failure to complete a course and effected the student in the future if the student needed financial aid for post-secondary academics (The Fastweb Team, 2017).

Withdrawals were recorded federally for financial aid purposes. Per federal standards, financial aid eligibility was contingent on course completion (Gilbert, 2017). The federal

government stipulated that in order to receive financial aid, a student must have achieved and maintained a 67% course completion rate at the institution they attended (U.S. Education Commission, 2016). How exactly did this affect dual enrollment students? Dual enrollment students were not paying tuition, so they were not eligible for financial aid while taking college courses as high school students (Smith, 2017). However, the federal government did not distinguish dual enrollment students from post-secondary students (Smith, 2018).

What this meant was that when a student in dual enrollment was withdrawn from a course, that withdrawal reported back to the federal government, just like it would for a post-secondary student seeking financial aid (Lawrence & King, 2018). When a dual enrollment student failed to meet the 67% completion mark, the federal government placed the student on a Satisfactory Academic Progress, or SAP report (The Fastweb Team, 2017). Fully illustrating this concept, let's say dual enrollment student Kaitlin Jones signed up for one dual enrollment class in her last semester of high school. Kaitlin had never participated in dual enrollment before, so this was her first and only dual enrollment class. Unfortunately, Kaitlin did not show up to the first week of class, so she was withdrawn for non-attendance.

In this situation, Kaitlin committed to one college course, which she was expected to complete. After receiving the non-attendance withdrawal, Kaitlin now had a 0% completion rate for her college coursework. Being in dual enrollment and not having to pay tuition, Kaitlin had no monetary punishments for her non-attendance withdrawal, and her college GPA was not affected (Smith, 2018).

However, fast forwarding five months later, Kaitlin graduated high school and wanted to attend college at the same institution where she did dual enrollment. This is where the consequences of that 0% completion rate kicked in (Lawrence & King, 2018). Now Kaitlin was

considered a post-secondary student and was eligible to apply for financial aid, except that her non-attendance withdrawal placed her on a warning list with the financial aid office (Smith, 2018).

Thanks to her indiscretion as a dual enrollment student, Kaitlin had put herself in a position where she stood to lose the ability to receive financial aid (Smith, 2018). Kaitlin now had to prove to the federal government that she was not a liability— someone who would borrow money from financial aid, drop out of all their classes, and use that money for something other than school (Lawrence & King, 2018). Students who on the warning list with financial aid had one semester to remedy the situation by improving their SAP score, or they were suspended by the federal government and unable to receive financial aid (He & Hutson, 2017). The silver lining to this was that SAP was specific to each institution; it did not follow the student from school to school. If Kaitlin was suspended from financial aid from the college she was attending, she could go to another institution and start over fresh (Fink et al, 2017).

Not all students were going to be able to switch educational institutions though. Students may be restricted by their geographical location, access to transportation, access to quality internet, and the number of higher education institutions in their area (Lile et al 2017). Students could also be barred from other institutions based on admissions criteria. Community colleges were often good options for local students because they typically did not have GPA or test score requirements for general admission (Lawrence & King, 2018).

Dual enrollment students who withdrew from multiple classes potentially ruined their opportunity for financial aid at their local community college after high school (Gilbert, 2017). The SAP warning was specific to each individual higher education institution, and did not follow the student if the student chose to attend another institution (T. Cook, personal communication,

May 24, 2017). As it turns out, however, dual enrollment students were more likely to give up on education altogether if their local academic institution denied them financial aid (Daley, 2017).

Dual enrollment students who lived in isolated areas were the most at-risk for not pursuing higher education when faced with a financial aid issue (Mercer, Palmer, Samuels, Schrodt, & Zimmerman, 2014). In densely populated regions like the central part of North Carolina, there were several community colleges within a short distance from each other. In more rural areas, such as the western region of North Carolina, county lines were farther apart. The smaller population and longer distances between county lines allowed for one community college to serve two or more counties (Tallant, Russell, Tennyson, Allison, Whinnem, & Kostelec 2014). Multi-county service regions meant a student may have had to commute over an hour, or resort to online courses, to attend another community college (Mercer et al., 2014).

As the mountainous terrain of western North Carolina made internet service unreliable, and a majority of citizens lived at or below the poverty line, attending an alternate community college was a challenge for many students in this region (Mercer et al, 2014). Residents of Western North Carolina especially, were more likely to seek out higher education if it was affordable and conveniently located (Allison et al., 2014).

Dual enrollment offered students the chance to do college-level course work tuition-free (Lawrence & King, 2018). Students did not pay to take courses; they were only responsible for acquiring the necessary textbooks and course materials for their classes. Being tuition-free, dual enrollment made higher education more attainable for students of all income levels (Smith, 2018).

Advising centered dual enrollment programs, such as the one Elizabeth Knox attended at South Piedmont Community college, made positive impacts in non-affluent rural areas similar to the service region of Southwestern Community College (Lawrence & King, 2018). Located in Sylva, North Carolina, Southwestern served Jackson County, Macon County, Swain County, and the Qualla Boundary which was home to the Eastern Band of Cherokee Indians. The state of North Carolina had a population of 10.27 million people, with 20% of that population living below the poverty line (World Population Review, 2019).

North Carolina's total percentage for people living in poverty was 20%, yet in the counties of Macon, Swain, and Jackson where the population for each county was fewer than 42,000 a recorded 17% of the population in each county lived below the poverty line (US Census Bureau, 2018). The Qualla Boundary, which was tribal land for the Eastern Band of Cherokee Indians, had a population of 9,613 with 27% of the population living below the poverty line. In the Qualla Boundary region, 83% of residents had a high school diploma, but only 12% had achieved a college degree (Eastern Band of Cherokee Indians, 2018).

There was an unemployment rate of 5.2% on the Qualla Boundary, which surpassed the state of North Carolina's unemployment rate of 4.9% (Eastern Band of Cherokee Indians, 2018). Jackson, Swain, and Macon counties all had unemployment rates below the state's average at about 3.2% per county (US Census Bureau, 2018). The high school graduation rates of these counties were similar to the Qualla Boundary with about 88% of residents having their high school diplomas (Eastern Band of Cherokee Indians, 2018).

Jackson County was home to Western Carolina University, a four-year higher education institution and main employer for the area. In Jackson County 30.5% of the population had a bachelor's degree, this rate was only slightly higher than Macon County where 22.2% of the

population had a bachelor's degree or higher (US Census Bureau, 2018). In Swain County, a close neighbor to the Qualla Boundary, only 15% of the population had earned a bachelor's degree or higher (US Census Bureau, 2018).

Adding relevance to the statistics presented above, there were approximately 3,000 students attending the 12 high schools in Southwestern's service region (World Populace Review, 2019). Not all of these students were eligible for dual enrollment. Dual enrollment was only open to juniors, seniors, and early college attendees. However, all of these students had the potential to participate in dual enrollment when they reached the appropriate grade level or attended an early college (US Department of Public Education, 2016). Southwestern served 778 students; 317 through early colleges and 461 attended homeschoools, private schools, alternative schools, K-12 institutions, and traditional public high schools (Everhart, 2019).

As of the 2019 spring semester, Southwestern was reaching 26% of the high school population in its service region (Everhart, 2019). Looking at the county statistics for the region, getting the students graduated from high school did not seem to be an issue—most people living in these counties did have a high school diploma (US Census Bureau, 2018). The deficiency lay in the high school diploma achievement rates being in the 80% range, but the attainment of higher educational degrees being below 31% (US Census Bureau, 2018).

Looking at the data, I began to wonder why the citizens of Southwestern's service region were not going on to complete higher education degrees, and if the lack of higher education credentials was contributing to the area's unemployment rates, especially in the Qualla Boundary. Between the poverty line information and the low level of higher education degree completion, the data seemed to tell a story of a people who could not afford to continue their education. When I ran the numbers to see how many high school students were in the area, I

discovered that around 20% of each county's population was comprised of people 18 and under (US Census Bureau, 2018).

After running the statistics for the area, I began to question what percentage of students were unable to receive financial aid from Southwestern Community College due to withdrawing from a dual enrollment class. Looking back over the past four years, 45% of students who participated in dual enrollment at Southwestern had graduated high school unable to receive financial aid from Southwestern (Everhart, 2019). This meant that these students were forced to pay out of pocket if they wanted to pursue an education from Southwestern after their high school graduation (Smith, 2018). Only 2% of these students ended up continuing their education with Southwestern after graduating high school (Everhart, 2019).

The majority of the 45% of students who were not eligible for financial aid at Southwestern due to a dual enrollment course were also unable to attend Western Carolina University (Everhart, 2019). In reviewing the students' records, I found that most were not deemed college prep in high school, which meant they did not follow the college eligibility curriculum plan set forth by the state of North Carolina and could not be accepted to a North Carolina four-year college or University (US Department of Public Education, 2017). If the students wanted to seek out education after high school and receive financial aid, they would have had to attend a neighboring community college—the closest two community colleges were both an hour away (Everhart, 2019).

Working with this data I surmised the theory that had these students received an advising component from Southwestern's dual enrollment coordinator, they may have been more successful academically. Smith (2017) reinforced this notion with a study showing that

statistically, 84% of students who participated in dual enrollment did attempt to move forward academically after high school.

Himerjick (2017) also supported that in the pursuit of inclusivity, it was more fitting for colleges and universities to incorporate advising into dual enrollment course selection.

Himerjick held that dual enrollment could not bring forth academic equality if students were not being treated equally. Partnering dual enrollment with advising, particularly in regards to college career resources prior to registering students for classes, helped students identify an area of study. When students had an identifiable goal, they invested, and put in the effort to maintain their goals (Saunders, 2017).

Advising, especially advising related to career counseling, ensured that the student knew how to think about the future and was guided to form a plan for the future (Himerjick, 2017).

Advising also ensured that students were aware of the consequences of their actions such as withdrawing from a class and receiving an F from their high school (Lawrence & King, 2018).

Career centered advising provided structure and removed the feeling of disenfranchisement associated with class hopping (Saunders, 2017). Tethering the student to a real objective correlated to a rise in course attendance and a reduction in withdrawals (Daley, 2017).

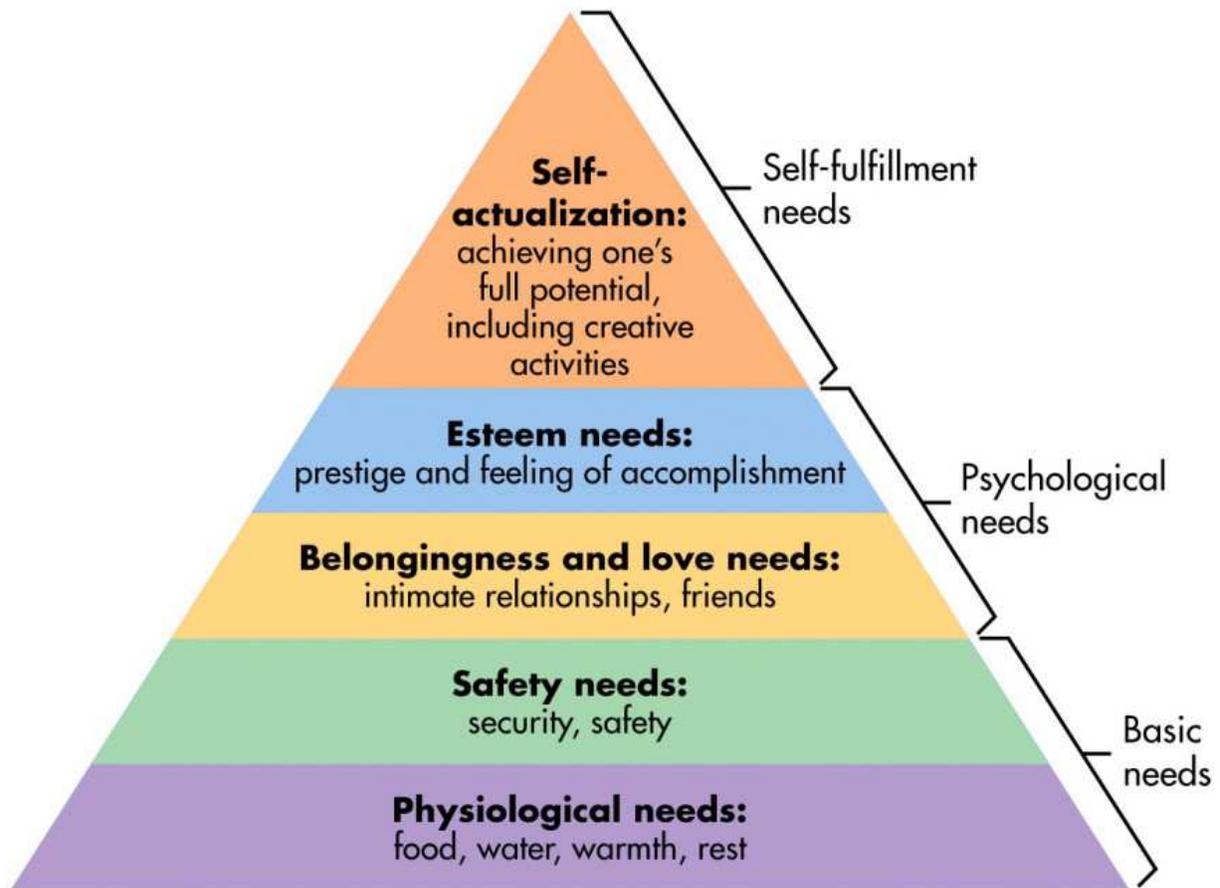
Positively impacting dual enrollment students through advising required lowering withdrawals, and getting high school guidance counselors collaborating with dual enrollment coordinators to bolster student success (Cowan, 2017). Realistically speaking, an objective goal was to implement advising which promoted tailored class registration. This type of college related advising ensured the student actively selected classes that led to a goal. This improvement method directly targeted class hopping with the mission of reducing withdrawals (Daley, 2017).

A direct tactic for addressing class hopping was to provide guidance counselors with the tools necessary to stop allowing students who were unable to identify a future career goal access to dual enrollment classes (De Palo, Monacis, Miceli, Sinatra, & Di Nuovo, 2017). This approach guaranteed students entered into dual enrollment focused. This was not an ideal solution though, as it yielded an ulterior side effect of discouraging students who were undecided on a major from attending secondary institutions in the future (Daley, 2017).

Drawing from scholarly works regarding completion rates, student development theories, and career counseling I was able to see how adding advising as an improvement initiative would lower withdrawal rates and provide students with a sense of purpose for the future. Thus, the intervention seemed like a relatively logical improvement. The heart of the intervention involved using college resources, particularly career coaching, to align dual enrollment classes with the student's post-secondary goals (Himerjick, 2017).

The success of this improvement intervention lay in hinging Maslow's (1943) hierarchy of needs with Lent's (2013) career-life preparedness model, then mixing in student empowerment based advising standards put forth by Bloom's (2002) development of appreciative advising. Shaping the scaffolding of the improvement began with a supportive foundation generated by Maslow (1943). Following the original hierarchy of needs five-stage model, if the student was going to succeed, his/her growth needs had to be met (Maslow, 1943). Figure D demonstrated Maslow's (1943) hierarchy.

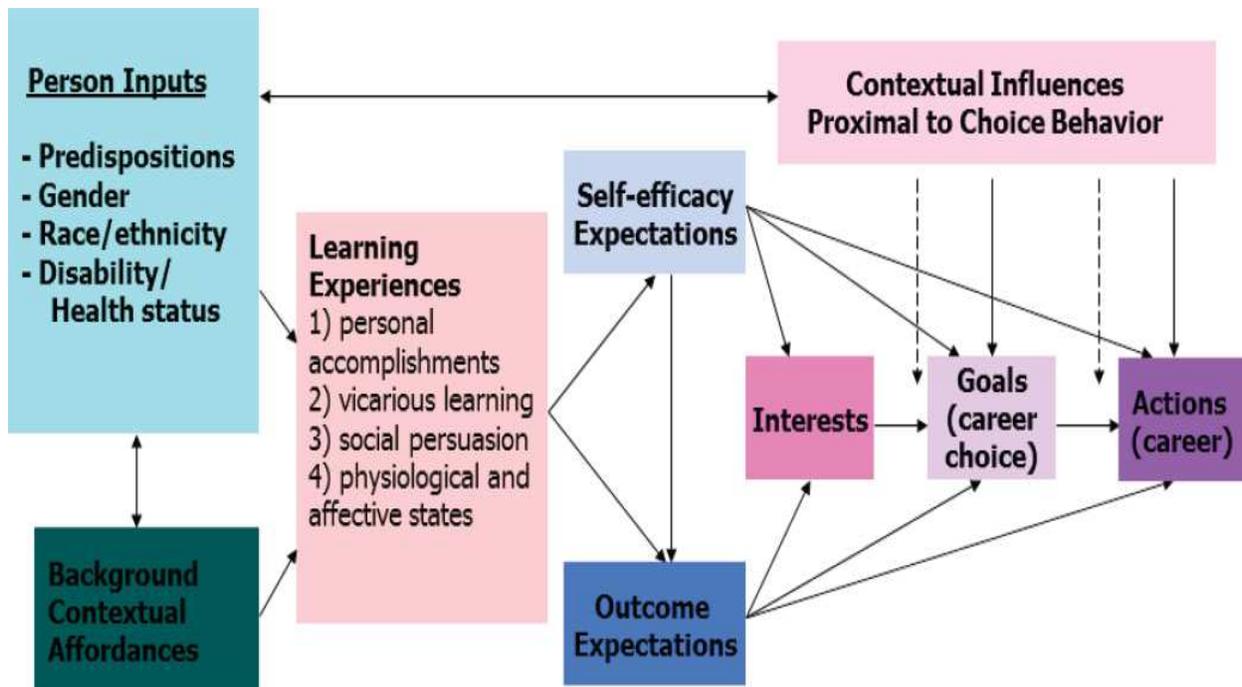
FIGURE D



According to Maslow (1943), a person succeeded if they were motivated to become their best possible self. Career counseling provided students a glimpse of not only what they could be, but what they could achieve (Sanders, 2017). Therefore, providing students with potential career choices, and showing them the life they could have with each option, satiated the need for growth and discovery (Maslow, 1943). Satisfying growth needs motivated students to put a better version of themselves forward, which led to a more dedicated performance academically (Selingo, 2016).

Building up from Maslow (1943), Lent (2013) added specific career counseling ideology into the improvement framework. Using social-cognitive career theory Lent created a model for career-life preparedness. In his model, Lent expressed that "workers needed to take greater control over their career development (Lent, 2013, p.2). Flipping this notion to one of "students should take greater control over their education," the career-life preparedness model was used to influence students positively (Himerjick, 2017). Figure E exhibited Lent's (2013) self-efficacy model.

FIGURE E



Creating the mantra “Me Incorporated,” Lent helped instill a sense of ownership in those he observed (Lent, 2013, p.3). “Me Incorporated” turned individuals into investments in their own minds. People who thought of themselves as an investment took tasks more seriously and outperformed those who did not claim the mantra (Lent, 2013).

Lent surmised that those who saw themselves as investments felt a greater duty to care for themselves. Therefore, this group put more effort into maintaining jobs, advancing in jobs, and gaining raises. The group that did not see themselves as investments normalized “going through the motions” (Lent, 2013, p.6). This group was less likely to rebound after unexpected obstacles, such as losing their jobs. The disenfranchised group also had a higher capacity for switching jobs (Lent, 2013).

The improvement intervention borrowed the idea of seeing yourself as an investment (Lile et al, 2017). Within the intervention, the coordinator's role shifted from flat registration manager (which made the student feel like a number), to a model of teaching where the student learned why he/she should care about himself/herself and his/her future career (Himerjick, 2017). The practical application of asking the students about their post-secondary plans, and making them assess themselves, was so they could anchor to a foundation. Objects that are anchored do not usually drift, or in this case class hop (Cowan, 2017). Therefore, students moved away from selecting courses aimlessly and moved toward conscious planning (Himerjick, 2017).

Expanding on this, Stebleton (2017) capitalized on Lent's (2013) work and founded the role of cognizant thinking in career-life planning. Stebleton explored Lent's concept through the scope of the class hopping student, or as he referred to them, "reasonable adventurers" (Stebleton, 2017). Highlighting that conscious planning, or "cognizant thinking" as it were, reduced uncertainty and allowed Stebleton (2017) to provide insight into why class hopping occurred.

Uncertainty was the cause of the class hopper's drifting mindset. Typically, students who class hopped did so because they were overwhelmed by the responsibility of planning their futures (Stebleton, 2017). Stebleton stated "reasonable adventurers," had a hard time selecting one option because they did not want to miss out on what all the other options had to offer. Unfortunately though, in seeking all options, the "reasonable adventurer" actually cheated himself out of opportunities by being pre-occupied (Stebleton, 2017). This notion correlated with the purpose of the improvement intervention, which was to comfortably tether students to a goal so they did not lose themselves (Daley, 2017).

Without guidance resources to make them feel safe, class hopping students exploded with internal worry related to long-term decision outcomes (Himerjick, 2017). Questions such as “How do I know if I will like this?” or “What if I hate it, but I get stuck doing it forever?” consumed the student’s thoughts (Saunders, 2017). Students who never learned how to think critically about designing career plans had anxiety about making the wrong choice (Lile et al., 2017). The best way to describe it is that the student did not feel like they had the authority to make those kinds of decisions (Daley, 2017). By adding a career counseling aspect to advising, the intervention instilled confidence so students could feel more authoritative about their futures (De Palo, et al., 2017).

CHAPTER THREE: METHODOLOGY

Chapter One of this document stated there was a lack of advising within the dual enrollment program across the state of North Carolina. The lack of advising was illustrated as a problem of practice because the deficiency led to students not attending class, receiving withdrawals, getting Fs on high school transcripts, and being penalized with Financial Aid suspension (Smith, 2018). The purpose of the disquisition then became clearly centered on remedying the problem of practice.

Chapter Two examined the benefits of providing advising with a career-focused approach. The literature review portion of the disquisition provided information from scholarly works, and discussed how adding advising elements brought improvement to student success at other institutions (He & Hutson, 2017). Overall, the research ultimately presented the benefits of advising such as a student population with increased awareness, able to make informed decisions that complimented post-secondary goals.

Chapter Three moved forward to outline and analyze a set course of action which made improvements to dual enrollment program operations. As outlined below, the specific course of action was to add an advising element that incorporated career planning. The methodology section laid out aspects of the intervention, such as design, goals, assessments, and evaluations to measure failure and success of the improvement implementation.

Designing an Intervention

I utilized Lent's (2013) Career-Life Preparedness model in combination with Maslow's (1943) framework on the Hierarchy of Needs to create an intervention. The basis of this intervention was having me, as the dual enrollment coordinator, provide advising to get dual

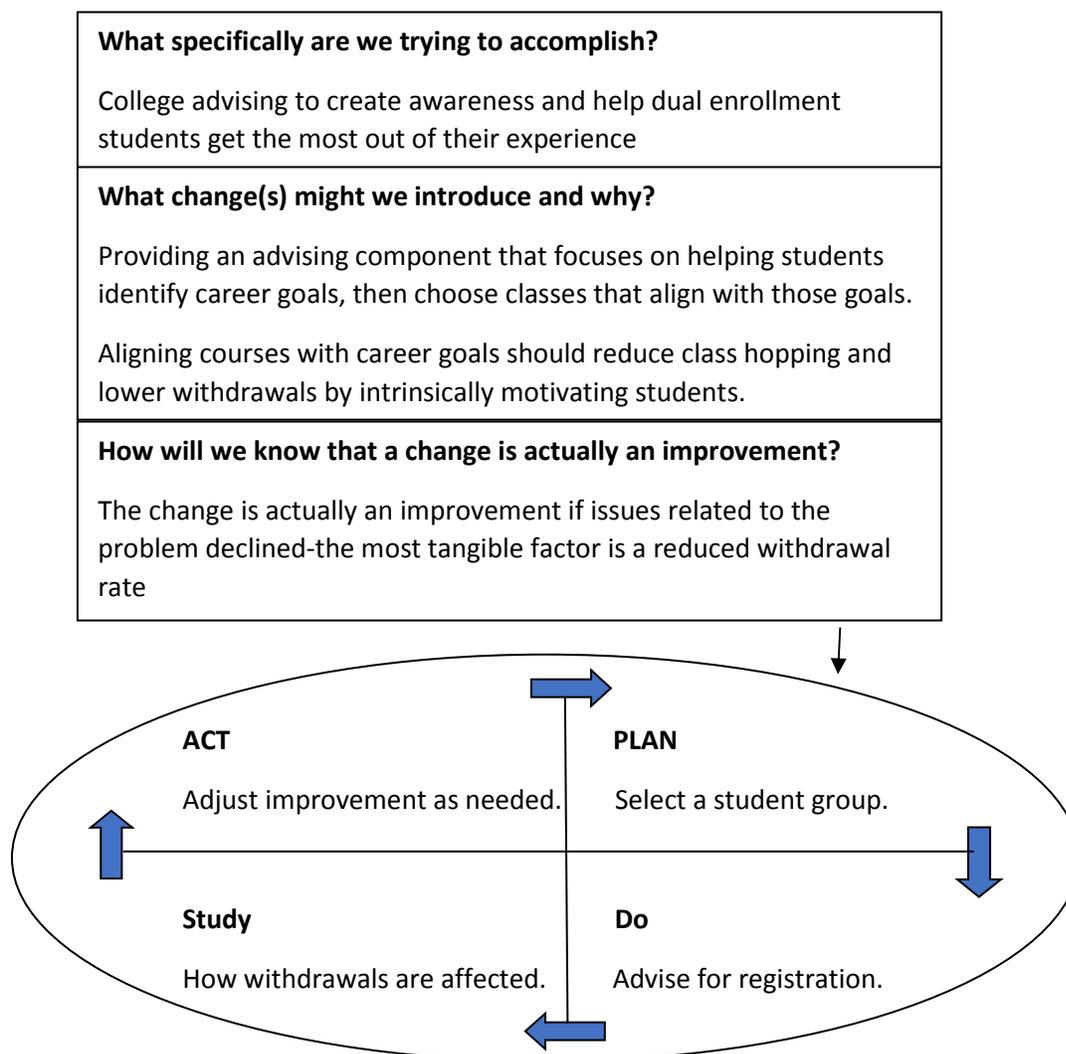
enrollment students intentionally picking courses based on post-secondary career ambitions so they were less likely to withdraw from classes. The goals of the improvement were as follows:

Goals of Proposed Improvement Intervention

1. Eighty-five percent of all dual enrollment students participating in the study would be able to articulate post-secondary plans going into the fall 2018 semester.
2. A marked 3% decrease in withdrawal rates for dual enrollment in one semester's time across Fort Pierce High as a whole.

Capitalizing on the goals provided, Figure F below mapped out the ideology behind the intervention. Figure F clearly defined the changes to be introduced, and how improvement success was determined.

FIGURE F



My strategy for doing that was to offer advising which helped students identify career goals, and then choose classes that matched with those goals. My hope in providing advising, especially career centered advising, was that students felt more connected to their dual enrollment coursework and by association more committed to successfully completing coursework.

Creating a connection to the college coursework helped the students to stay in their courses and perform at a satisfactory academic level. In focusing on providing advising, I hoped to lower withdrawals. At the college level, there were three different types of withdrawals a student could receive.

Non-Attendance (NA) withdrawal, meant the student was withdrawn for not attending the first week of their classes. An administrative withdrawal (AW), meant the student's instructor withdrew them from the course for not attending or not submitting work for two weeks, and a standard withdrawal (W), meant the student withdrew themselves from the course. Regardless of what form the withdrawal was issued in, withdrawals did not affect a student's grade point average.

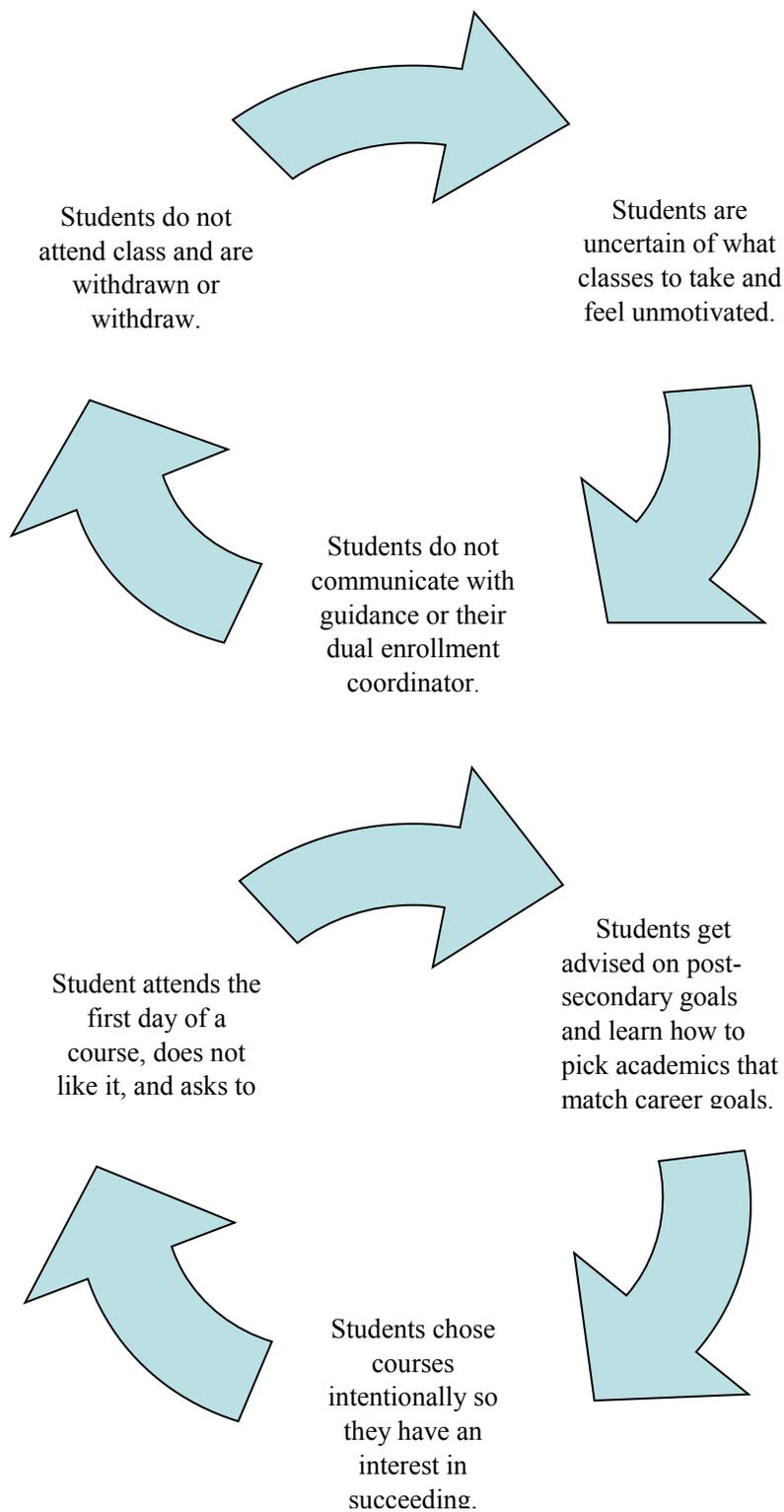
Each withdrawal carried the same weight, they did not affect the student's GPA, only the student's standing with financial aid because of the aforementioned satisfactory academic progress, or SAP score. There was no way around an administrative withdrawal. If the student did not attend or turn in work for two weeks, college policy said the instructor must withdraw the student.

With a standard withdrawal, the student was making a conscious choice not to continue the course, which depending on the student's reasoning might have been

detractable. Non-attendance withdrawals, however, were completely avoidable. A student did not have to get a withdrawal for non-attending on their record. The student could have instead used the college drop/add period and simply dropped the class so they did not get an F on their high school transcript, and their future financial aid would not be affected.

Targeting withdrawals and putting preventive measures in place, had the beneficial side effect of helping protect students' federally monitored Satisfactory Academic Progress (SAP) levels (Bautista, Relajo, Pilao, Tubon, & Andal, 2018). Encouraging students to use the drop/add period, which was an allotted period of time where students could be removed from a course with no repercussions, promoted accountability (Smith, 2018). Promoting the method of correctly dropping the class taught students to take positive action to ensure their own academic success instead of simply ignoring the class, and not showing up. Figure G below illustrated the anatomy of withdrawals, and how advising could remedy them.

FIGURE G



Many students felt that by not showing up they were simply removed from the roster. In reality, the student was creating problems by receiving the non-attendance withdrawal which was reported as an F on their high school transcript (Smith, 2018). Creating awareness through college advising was a gateway to improving the dual enrollment experience for students (Smith, 2018).

In my role as a dual enrollment coordinator I was seeing firsthand how ambiguity and surprises caused bad feelings. This contributed to students becoming upset when they learned their financial aid had been affected at the post-secondary level. Fort Pierce's students needed to be taught how to think about college preparedness, and navigating academic processes by themselves (Bautista et al., 2018). Advising provided that resource to bridge the learning curve between high school courses and college ones.

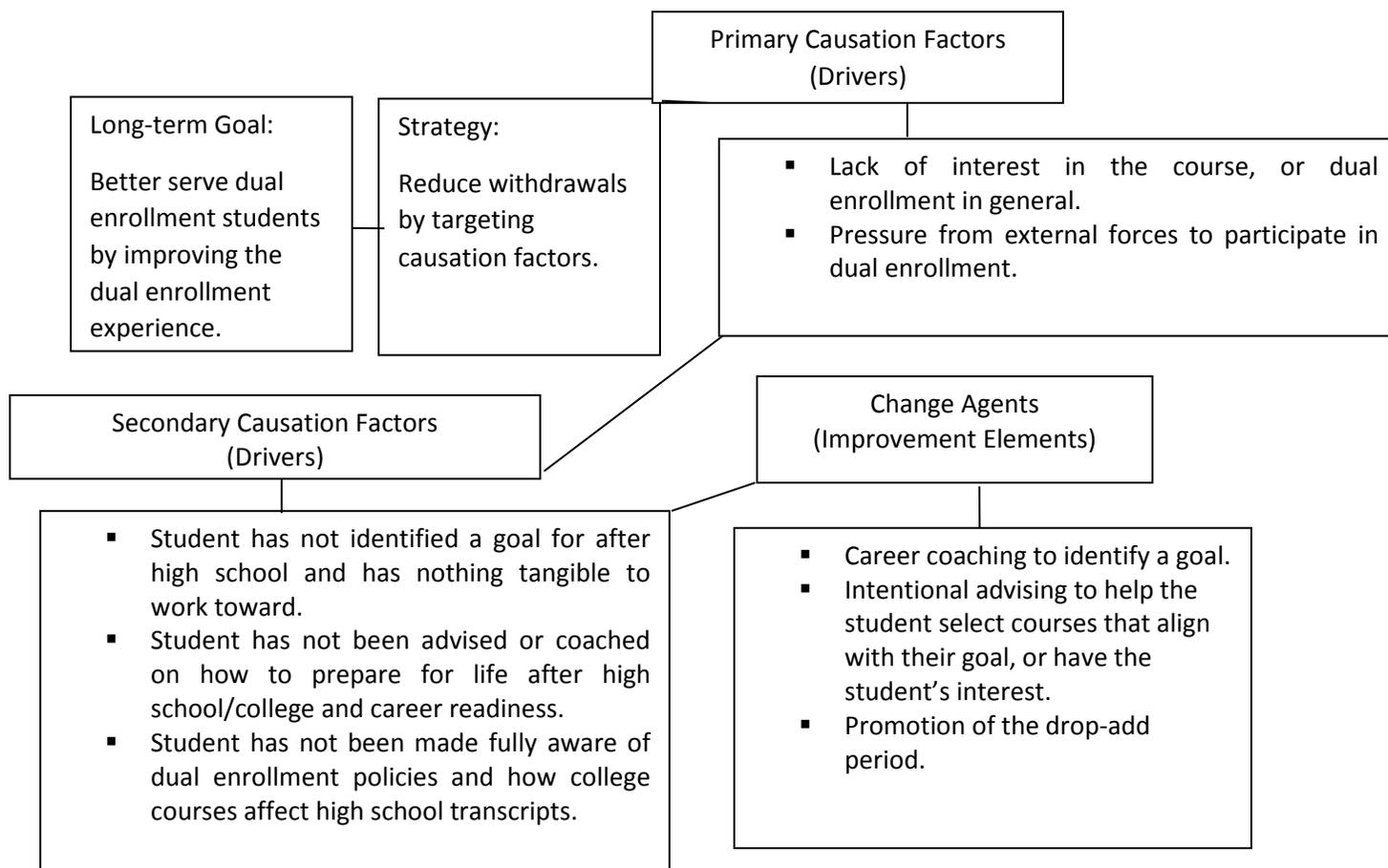
Driving Factors

Using Maslow's (1943) work to make sense of the problem it became clear that students had an intrinsic need for guidance which was not being met by the current dual enrollment operational structure. The dual enrollment program's inability to fulfill the students' need for guidance called for an improvement intervention to ensure students were being adequately served by their dual enrollment experience (Gewertz, 2017). Lent (2013) provided the constructs for meeting the student's guidance needs with his Career-Life Preparedness model.

Figure G below showed a Driver Diagram which illustrated the body of the improvement plan merging the ideas presented by Maslow (1943) and Lent (2013). The Driver Diagram depicted in Figure H identified the goal of the intervention. Figure H outlined the strategy

selected to achieve the goal, and the primary and secondary causation factors that were addressed to make the strategy work.

FIGURE H



Secondary factors, or drivers, added to negative behavior associated with a lack of advising. The lack of advising caused students to not feel prepared for college or life after high school. In looking at the causation factors of the behaviors, ideas were generated on how to intervene to elicit more positive behaviors from students. The elements of change listed are the foundation of the work carried out in the intervention (LeMahieu, Bryk, Grunow, & Gomez, 2017).

The thought behind the improvement was that a few modifications to the registration process, mainly providing advising before, and during class selection, would help students take ownership of their dual enrollment journey. Previous research from the literature review indicated that students who were given a sense of ownership in their future were ten times more likely to complete a post-secondary academic program (Smith, 2018). The student-centered, post-secondary goal advising focused, improvement was then crafted and the details of the three-part process were displayed below:

Part I: Pre-Registration

1. Before registering for classes, the dual enrollment coordinator reviewed the importance of matching dual enrollment classes with post-secondary goals. The dual enrollment coordinator then asked the student “Where do you see yourself after high school?” If the student did not have a direct answer, the coordinator asked the student “Is there any particular career you’ve considered? What are you good at? What interests you?”
2. If the student was not able to identify a post-secondary goal the dual enrollment coordinator had the student complete a career assessment using the job aptitude software Career Coach
3. The coordinator then went over career options and/or courses that matched with the student’s stated goals or aptitude test results

Part II: Registration

1. After having a brief period (usually one to two days) to think about their options the students returned for an advising appointment where they selected their dual enrollment classes. The dual enrollment coordinator asked the student what they had decided to take based on the options covered in the pre-registration advising session
2. The dual enrollment coordinator reviewed college policies regarding attendance, withdrawals, and the drop/add policy. The student was provided with an information sheet so they had a document clearly stating the policies, the drop/add period dates, and the day classes started
3. The dual enrollment coordinator provided the student with a copy of their schedule and showed the student how to log onto their online college accounts

Part III: Post Registration

1. The dual enrollment coordinator issued an automated call to remind students about the start of classes.
2. The coordinator checked in with students during the drop/add period (first week of class) to ensure students wanted to stay enrolled.
3. Students who expressed disinterest in their course were encouraged by the dual enrollment coordinator to drop their course/courses to avoid penalty.

Formative Assessment

During the course of the improvement it was necessary to check that the improvement was actually helpful, was being implemented properly, and that the improvement rendered the intended results. Balance measures ensured healthy change for the system being improved.

Balance measures referred to supports built into the intervention to keep me accountable as I worked with the intervention (LeMahieu et al., 2017).

The best way to keep balance in this situation was to create a checklist of items I needed to cover in advising. I made a checklist for myself, but I also made a checklist for students so they knew they had been fully advised on processes. Reviewing the checklist with students provided the chance to say, “Is there anything not on the list you hoped I would cover?”

Process measures assisted balance measures by making sure the methodological processes were carried out in an even and precise manner. Process measures referred to actions ensuring each part of the intervention was delivered the same to each student. The purpose of the process measures was to safeguard the improvement’s methodology.

An added benefit of the process measures was that doing everything as prescribed also contributed to the overall health of the improvement balance. (LeMahieu et al., 2017). In this case, I planned out the career coaching portion of the advising intervention so every student had the same experience, and was taught how to think about careers in the same way. My process measures involved scripting the career coaching conversation, and using the career software Career Coach with each student.

Finally, the outcome measure guided the improvement towards reaching its desired results (LeMahieu et al., 2017). The desired outcome of the improvement was to improve dual enrollment through advising. The measure I used to gage if I reached my outcome was whether or not withdrawals decreased after students were advised and career coached. The outcome measure refereed to the system I used to measure the success of the intervention. Progress was easily determined through pulling the 2017 and 2018 enrollment records and comparing the number withdrawals.

Leading variables such as intentional class selection, a defined career goal, and a satisfactory high school academic record were indicators that the student was committed to their dual enrollment courses (Prince, 2015). The student's unweighted high school grade point average provided a leading measure predictive of success. By pulling the student's high school transcript and checking for a grade point average of 3.0 unweighted before enrollment, I could gauge the student's academic prowess (De Palo et al., 2017). The GPA marker of 3.0 was a college readiness measure set by North Carolina's public education system.

Summative Assessment

The data generated from the intervention trial was solely quantitative. In this scenario, concrete facts were needed to prove effectiveness. Qualitative data is subjective, it draws from the opinions of the subjects. In this case, I did not feel that success could be properly measured by interviews or focus groups (Christensen & Johnson, 2016). The task at hand was to see how college-based advising impacted the withdrawal rates of dual enrollment students. The validity of the method lay in whether or not it actually reduced the number of withdrawals among dual enrollment students at Fort Pierce.

Evaluation

Comparing the intervention group to the prior year's dual enrollment group from Fort Pierce showed if the improvement made a difference. Selecting a high school that had a high rate of withdrawals was vital because a school with a high rate of withdrawals made change more evident if the withdrawal numbers did drop. If the intervention group had fewer withdrawals than the previous group, then it was reasonable to say the intervention treatments which included career coaching, increased communication, and intentional advising did affect the withdrawal rate.

I had been the dual enrollment coordinator at Southwestern for the past four years, and have carried registration-based enrollment processes consistently with the same results, so any positive changes to the withdrawal numbers could reasonably be credited to the intervention changes implemented. If the intervention group had more withdrawals than the previous group the intervention would need to be altered to increase effectiveness (Christensen & Johnson, 2016). Of course, even in a successful improvement, there would still be room for tweaks to maximize positive results.

Timeline

The timeline for the intervention was easily executed within the 2018 fall registration season. With fall registration, the guidance office from Fort Pierce provided the dual enrollment student group in August for the Part I and Part II techniques being administered before the college's drop period ended on August 21. Throughout the semester withdrawal data was collected by running an enrollment report. The enrollment report provided a record of which students received withdrawals. The number of withdrawals was counted then compared with the number of withdrawals at Fort Pierce for the previous fall semester.

Development Team

The development team was crucial to developing and implementing the proposed intervention. In order for the intervention effort to be launched, it needed to be approved by the college's administration. I sought institutional support by getting permission to enact the intervention from the college's Dean of Students, Cheryl Contino-Conner, and Director of Enrollment Management, Mark Ellison.

In designing the intervention, I drew input from Annette Kesgen, the Director of Upward Bound, and the colleges' Success Coach, Tori Addington-Ellison. As employees who worked

directly with student advising from a goal-oriented standpoint, they supervised the intervention as it was being conducted. As Southwestern's dual enrollment coordinator, I carried out the intervention.

CHAPTER FOUR: IMPLEMENTATION AND EVALUATION

After careful deliberation on the methodology, the improvement was ready to be tested. As previously mentioned, improvement science—the guiding source for this project—revolved around planning, doing, studying, and acting. Improvement science was defined as the art of creating interventions that brought forth positive change (LeMahieu et al., 2017).

Positive change was created through careful planning of what the improvement would be and how it would affect the environment it was being tested in. Operationally speaking, improvement science also safeguarded against negative outcomes by watching the improvement (the study cycle), and making tweaks along the way to redirect the intervention should negative effects had of occurred. This is not to say there were not going to be negative effects, it just meant Improvement Science sought to deflect the negativity as much as possible through the Plan, Do, Study, Act, or PDSA, method (Daley, 2017).

This particular project went through two cycles of Planning, Doing, Studying, and Acting to maximize efficiency. The details of each cycle were outlined below, beginning with the first cycle. Figure E mapped out the first iteration of the PDSA cycle.

PDSA Cycle One

Plan

The first PDSA cycle began with choosing which particular high school would be the testing ground for the intervention. Out of all of the options in Southwestern's service region, Fort Pierce High School (a pseudonym) was chosen as the target school for the intervention. Fort Pierce was chosen because it was the largest school in Southwestern's service region with approximately 900 students, and because dual enrollment students from Fort Pierce taking courses through Southwestern had the largest withdrawal rate out of all of the high schools.

Out of all the partnership schools, Fort Pierce had 130 students enrolled in dual enrollment courses for the 2017-2018 academic year, and 87% withdrew or received a grade below C (Everhart, 2018).

The Fort Pierce population had the highest rate withdrawals and the highest margin of students being unable to identify post-secondary goals out of all students in Southwestern's dual enrollment program. Fort Pierce's population showed significant evidence in a correlation between class hopping and withdrawals stemming from a lack of college advising (Everhart, 2017). Class hopping occurred when students chose courses at random trying to see what interested them, or because nothing interested them. Students who class hopped typically had not identified a career goal for after high school, so they "hopped" between various subjects in school trying to find an interest (Stebbleton, 2017).

Within Fort Pierce's dual enrollment program, 15% of students in College Transfer courses could at least identify a post-secondary goal of wanting to attend college, but only one percent of the Career Technical students could identify a post-secondary goal as of the spring semester of 2018 (Everhart, 2018). For the Career Technical students, identifying a post-secondary goal meant being able to state a desired career path. Career Technical students at the high school level took a different course curriculum than College Transfer students. Career Technical curriculum at the high school level met graduation requirements for a North Carolina High School, but did not meet entrance eligibility standards for four-year colleges and universities. This meant that students designated as being Career Technical students were expected to go into the workforce, or to a community college, after high school (Smith, 2018).

Do

To initiate the improvement, I asked the guidance department at Fort Pierce to submit a list of students who were interested in dual enrollment for the 2018-2019 academic year. The list included more than 140 students, so I eliminated all students who were not eligible. Dual enrollment policy states that students must have a “3.0 GPA and be making satisfactory progress toward high school graduation in order to participate.” Students who do not have a 3.0 can still take Career Technical courses with the permission of their principal (North Carolina Community College System, 2017).

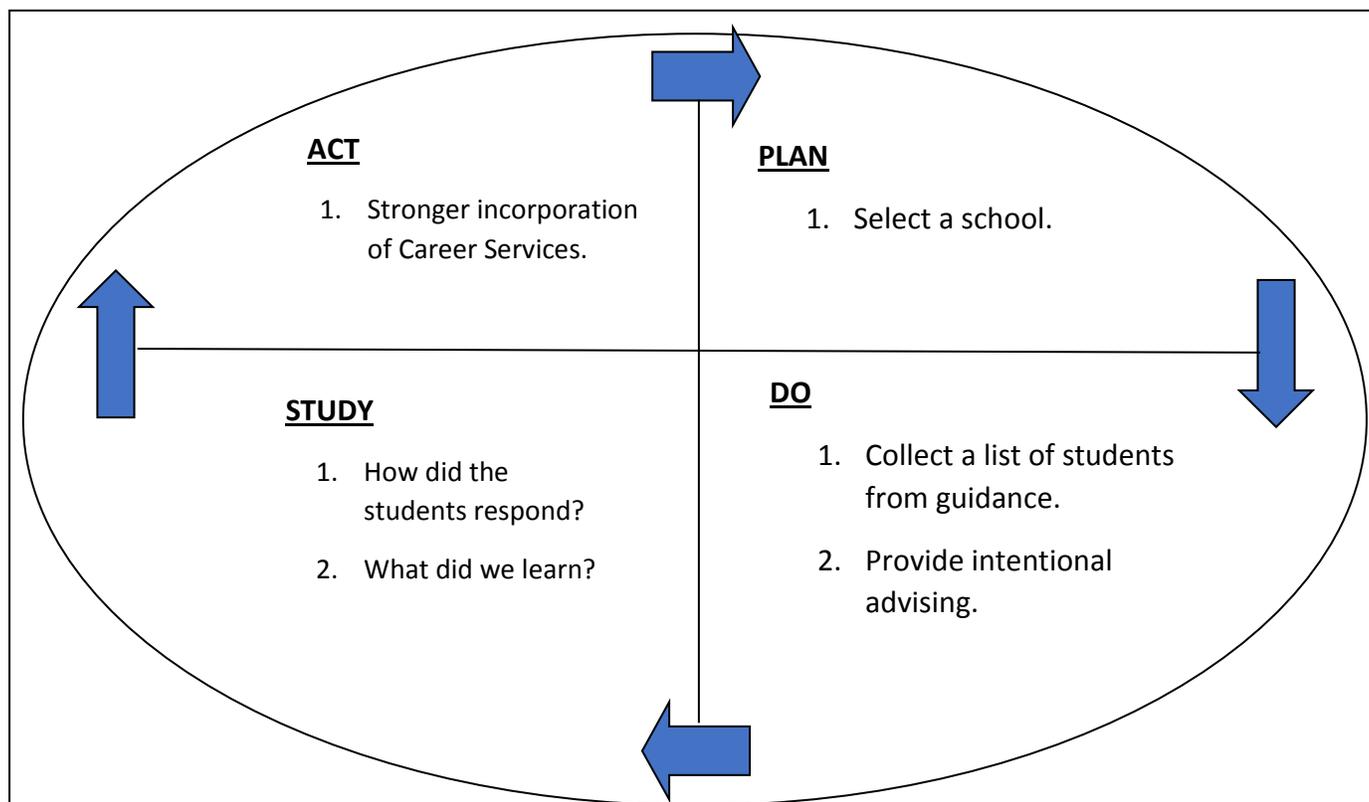
I removed students from the list if they had truancy issues, were currently failing a class at the high school, or the principal would not sign off on the student taking dual enrollment courses. After narrowing down the list, I had 85 candidates left. An additional 15 students were later removed because they strictly wanted to take college transfer courses but their GPA was below a 3.0. Due to the students being in high school, the Institutional Review Board for Western Carolina University required a permission form for all students participating in the intervention, so only 10 students were able to be included in intervention proceedings.

Entering the pre-registration phase, the 10 students were all asked, “Where do you see yourself after high school?” Students who were able to identify a specific major or career were given options of dual enrollment courses that aligned with their major or career. Students who did not know what they wanted to do or stated a generic goal such as simply "work" or "college" were asked, “Is there any particular career you’ve considered?” If the students did not have a response, I further prompted them with questions such as “What are you good at? What interests you?” It was my hope that these questions would help the student generate ideas that I could discuss with them.

Study

Five students all gave the answer of wanting to go to college, but none could identify a major. After the first cycle of the improvement, I decided to adjust my strategy and suggested that College Transfer students who could not identify a specific field of study visit Career Services as well. I made this decision because I felt that being able to identify a specific field of study added a motivational factor by giving the student a tangible goal to reach for. Figure I displayed the PDSA cycle one.

FIGURE I



PDSA CYCLE TWO

Plan

It was obvious after the first improvement cycle that while identifying college as a post-secondary goal was reasonable, there did need to be an added element of choosing an actual major (Stebleton, 2017). College Transfer students who simply stated “college” as their post-secondary goal needed additional tethering to ensure they would not lose interest in their classes after a certain period of time. Helping the student further identify a major also solidified a sense of direction that raised the student’s likelihood of continuing with their education after high school (Smith, 2018).

Furthermore, in working with the Career Technical students, none of them could directly identify a post-secondary goal when asked. These students needed to be given follow up questions such as, “Is there any particular career you’ve considered?” and “What are you good at, what interests you?” These questions prompted deeper self-reflection which helped the student identify a specific goal, or at the least, generate potential career fields to explore. However, I felt that it should be mandatory for them to meet with Career Services in order to fully understand how to identify potential careers. Figure F illustrated the second iteration of the PDSA cycle.

Do

An interesting discovery from the first iteration of the PDSA cycle was that when asked what they were good at and what interested them, students hesitated. The students all responded more readily with their interests than their abilities. This was interesting because I perceived the inability to discuss positive attributes about themselves as a lack of self-awareness based on information provided by Stebleton (2017).

My takeaway was that Career Services could properly relay how to recognize personal ability and match those abilities with career choices. I came to the conclusion that I needed to make the meeting with Career Services mandatory so as not to exclude elements important to the students' development. In the second iteration of the PDSA cycle, all students who could not identify a goal, or gave a generic goal, had to meet with Career Services before they could select dual enrollment courses.

Study

Moving into Part II of the improvement, Registration, students who were not required to meet with student services did not arrange an appointment. The students who were required to meet with Career services were energized and committed to a certain goal. They had identifiable options of dual enrollment courses they wanted to try. Students who could not identify a goal, and were not required to meet with Career Services, struggled to choose courses.

The students who could not identify a goal, and were required to meet with Career Services, appeared more tethered to their academics because of their enthusiasm from meeting with Career Services. The students who could not identify a goal, and were not required to meet with Career Services, were noticeably less joyful than the students who met with Career Services. All students who met with Career Services made follow up appointments with Career Services and participated in ongoing career counseling.

Act

After selecting courses related to their goals, the students all moved into Part III of the improvement, Post Registration. The automated call reminding students that classes were starting did not take place. Several technical glitches within Southwestern's computer-based operating systems made it impossible to put forth the call.

Originally, I was concerned that the success of the improvement hinged on the automated call reminder. I believed that students would not attend the first day of classes if they were not reminded of the start date. To my relief, all students were intrinsically motivated after their last advising appointment, and everyone attended their first days of classes.

The outcome of all students attending classes was especially surprising considering Southwestern started their semester on a Wednesday in the middle of the week. I had a suspicion that a mid-week start date, six days before the start of Fort Pierce's semester would confuse students. However, I had printed out each student's schedule and handed it to them after their advising session along with a letter advertising the start date of classes.

Being given an individualized schedule made a significant difference in the overall success of the improvement. It should be noted that giving each student a copy of their schedule, along with a letter explaining the drop period and withdrawal policies, was a warranted adjustment to the improvement design. This practice was a positive reinforcement tactic. Figure J showcased PDSA cycle two.

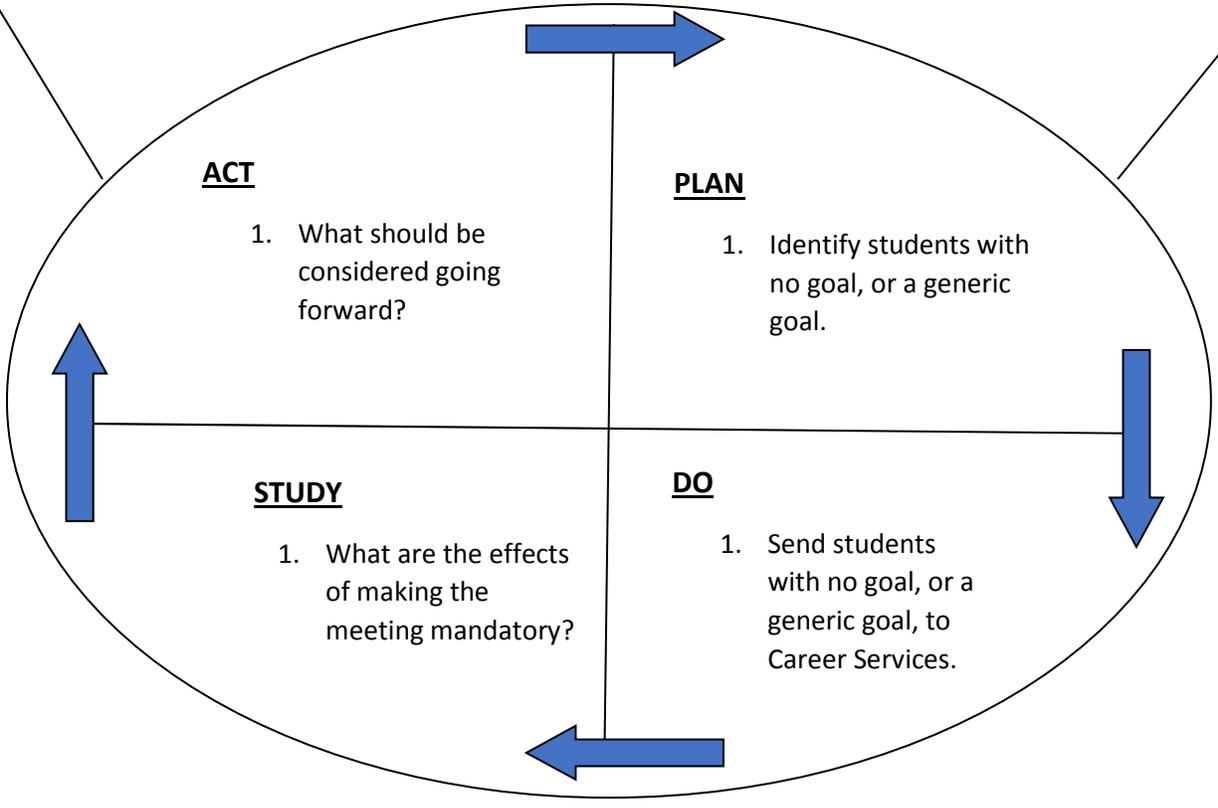
FIGURE J

What specifically are we trying to accomplish?

1. Stronger tethering to goals.
2. Advanced sense of purpose for the student.

What changes might we introduce, and why?

1. More usage of Career Services—
Career Services can help Career Technical students chose potential career fields, but they can also help College Transfer students chose academic majors based on potential career options. Students who cannot identify a goal, or identify a generic goal, should meet with Career Services before being advised for dual enrollment classes.



CHAPTER FIVE: WRAP UP

Following the 100% attendance rate on the first two days of classes, no student in the intervention group wanted to drop their class. One student actually decided their chosen course would be easier than anticipated and moved to the online offering. However, in the Fort Pierce dual enrollment population outside the intervention group, there were over 20 changes made to class schedules.

Overall, the improvement did meet the goals that were set. The students who participated in the intervention group outperformed expectations, with all intervention group students attending and maintaining their courses. An unexpected side effect of the improvement was that the 10 focus group students mimicked my advising strategies when interacting with other dual enrollment students from Fort Pierce.

While there was a lot of schedule adjusting for the Fort Pierce population as a whole, only five students were withdrawn within the first 20 days of the semester. A record low of four students were withdrawn for non-attending, and one withdrew himself from the course. I observed students inside the intervention group relaying the information I had given them and actively coaching their fellow students outside the intervention group to use the drop/add period.

Since the intervention met its goals, it could be tested on a larger scale, and potentially become a standard for dual enrollment advising across North Carolina. The intervention aligned with North Carolina's overall purpose for dual enrollment, as North Carolina had already designed new operating procedures to reduce class hopping. When dual enrollment was used as a college exploratory tool, students could "jump" freely between course pathways.

Conclusion

As of fall 2017, students were required to state a career goal and chose a pathway. These new policies stemmed from a strict emphasis on the completion agenda. Moving forward, if a student wanted to change pathways, the student had to provide a statement about why and show proof that the student was switching programs to match post-secondary goals (North Carolina Community College System Office, 2017). The intervention design displayed in this body of work was based on studies that reduced class hopping.

While the short-term measure of the intervention was to reduce withdrawals, the long-term scope of the project was to help the dual enrollment program better serve students. Class hopping was a causation factor of withdrawals, and the treatment in this intervention was designed to combat class hopping through offering dual enrollment students college advising. The intervention tactic of using career coaching to help students set goals before choosing dual enrollment classes could be initiated on a state-wide level to make sure North Carolina's dual enrollment students were getting the most beneficial experience from their time in dual enrollment.

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