

**Differences between Dual Enrollment and Traditional Students: A Comparative Analysis**

by

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## Abstract

This study focused on the self-directed learning strategies of dual enrollment students. The use of self-directed learning strategies has been increasing throughout industry. The focus of the study was to examine the difference between the dual enrollment and a traditional student's self-directed learning strategies. The Motivated Strategies for Learning Questionnaire was used with 92 community college students. There were no significant findings. However based on results, dual enrollment might be a way to increase a male dominated trade like A&P mechanics. Further research in this area suggested.

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## CHAPTER 1

### Introduction

Since the late 1970's, the use of dual enrollment has been used as a tool to aid in the development of our high school students. Some states have started to cut funding for dual enrollment programs, even though they know they have value. McGill (2011) article examined why the state of Pennsylvania removed grants for dual enrollment from the state budget for the 2011- 2012 school year. The new budget eliminated seven million dollars allocated for dual enrollment programs (McGill, 2011). In Vermont, Leland and Gray Union Middle and High school had an outside evaluation and an assessment of their program condition. Whether the cost of the evaluation was even worth the results became a source of debate (Faher, 2015). A partnership between the local State college gave students college credits for participating in advanced classes. The attendance in advanced classes had increased even though the overall school population continued to decrease (Faher, 2015). The discussion of whether to fund or not to fund dual-enrollment continues through today. The University of Wisconsin discontinued support for dual enrollment courses. Terminating support followed a ruling by the State Attorney General. The Attorney General's finding that the college could not charge the parents for dual enrollment left the college with no alternative but to close the program (Hansen, 2015). The cost/benefit of dual enrollments vary by State and Local Governments.

This study investigated the difference between traditional students and dual enrollment students. Specifically it looked at differences in student learning strategies. An article written in 1995 spoke to the fact that between life lessons and experiences on a day-to-day basis

makes an adult mature and they become a more self-directed learner (A smooth, 1995). The question behind the study of Dual Enrollment is, do students who take college classes in high school develop self-directed learning skills sooner than those who wait to take these classes after completing high school? Many schools have these programs and the price tag of the dual enrollment programs continues to be a source of contention for many taxpayers. Taxpayers across the nation question dual enrollment's return on investment. A statewide survey conducted by Speroni (2011) found no evidence of the following: 1. taking a dual enrollment course increases a student's chance to graduate; 2. completing a dual-enrollment class would not increase student odds of enrolling in college, 3. no link between dual enrollments and completing a college degree. A study by Mark (2010) showed that dual enrollment prepared students for college. The study also showed that the dual enrollment programs also prepared students for post high school employment (Mark, 2010). One possible way to address the question of what dual enrollment accomplishes is looking at the level of self-directed learning abilities between the two different paths to a community college: traditional and dual-enrollment.

### Background of the Problem

Eighmy (2009) reported that the number of manufacturing jobs decreased and those of technical services industries increased. The United States has lost five million manufacturing jobs since 2000 (Long, 2016). Manufacturing jobs, in general, did not require college education. Those in the technical services industries to large extent require college education in a large proportion to those in manufacturing (Panchak, 2015). Selko wrote about LiDestri in 2015, a company that processes food and uses advance technology in its packaging had issues with first line operators working the machines correctly. Their first operators deemed under educated for

the task required by management. In order to solve the problem and find first line operators in Rochester, the company looked at the nearby colleges. Having access and ability to hire the graduates from surrounding colleges, they were able to fill the first line operator positions with people who could operate the advanced technology and this led to their success (Selko, 2015). Wang (2015) found that dual-enrollment has led to more college enrollments and completions than the traditional high school to college path.

#### Statement of the Problem

Mercer (1996) and Kelly (2008) found there has been a decrease in college enrollment across the United States. Jester (2006) found a link between dual enrollment and helping to lowering high schools dropout rates. Dual enrollment students had a higher percentage go to college and were able to perform better than the traditional students once they arrived in college. Rasmussen College in 2013 identified that as the workforce becomes more technical, the need for workforce preparation will continue to increase. The United States lost over 9000 manufacturing jobs in September 2015 alone (Koenig, 2015). Dual enrollment exposes high school students to college level learning and can speed their path to employment (Townsend, 2000). There is a lack of research pertaining to dual enrollment and traditional students.

#### Purpose of the Study

The purpose of this study was to examine differences between dual enrollment and traditional students in a community college in the southeast region of Alabama. This study identified the extent students of the dual enrollment programs used Self-directed learning strategies in comparison to the traditional community college students. Dual enrollment students have an easier adjustment to college than traditional students (Jester, 2006). High School students in dual enrollment program earn college credit and then graduate earlier than traditional

students. This makes dual enrollment college graduation and/or integration into the workplace quicker (Townsend, 2000). Encouraging high school students to become self-directed learners during their junior or senior year while taking a dual enrollment course might serve as the catalyst to self-directedness.

### Research Questions

This study used the following research questions:

- 1) What are the Self-directed learning strategies of students who were dual enrolled?
- 2) What are the Self-directed learning strategies of students who were not dual enrolled?
- 3) What are the differences in Self-directed learning strategies between dual enrolled and not dual enrolled students?

### Significance of the Study

The State of Alabama graduation rates are on the rise, but 32 percent of the state graduates enrolled in college need remediation. These courses are typically in math and science (Mcdaniel, 2015). Johnson (2009) showed that dual enrollment helped reduce remediation courses. Dual Enrollment students has shown higher enrollment and completion rates than that of traditional students (Wang, 2015). This could lead to having more college graduates in years to come.

### Limitations

- 1) The Survey was limited to a single community college in the southeast region Alabama.
- 2) The participants were self-selected volunteers.
- 3) The participants were willing to take personal time to participate in the survey.

4) The Survey is only a glimpse in time, based on a small sample and is limited in that it is a comparison survey and does not prove or disprove the research questions.

#### Assumptions

- 1) The participants in the Survey provided correct answers to the best of their abilities.
- 2) Specific outcomes bias did not direct or guide the examination of survey data collected.
- 3) The Motivated Strategies for Learning Questionnaire is a proven, reliable and above reproach as a survey instrument for this survey.
- 4) All participants can read and understand the survey.

#### Definitions

*Adult Education.* “Is any intentional and professional guided activity that aims at a change in adult persons” (Knowles, Holton, &, Swanson, 2015, p39).

*Advance Placement (AP).* High school class similar to a college course while in high school and then after a successful completion of the class takes an Advance Placement exam. If the score on the exam is high enough, then some colleges award credit for that course.

*Andragogy.* The art or style of teaching adults. Refers to a style of instruction centered on the student (Knowles, Holton, &, Swanson, 2015).

*Dual Enrollment.* Refers to a high school student taking a college class and receiving credit for high school and college at the same time.

*Traditional.* Refers to a student who is taking no college classes while in high school and then enters college after achieving a high school diploma. Advanced Placement classes are Traditional for the purpose of this study.

*Pedagogy.* The art or style of teaching children. Refers to a style of instruction centered on the instructor (Knowles, Holton, &, Swanson, 2015).

*Self-Directed Learner.* It is when the learner takes responsibility and initiative for their individual learning needs. They identify their need, develop a plan; they may do this with or without assistance.

*Self-regulation.* For the purpose of this paper self-directed and self-regulated can be used interchangeably.

### Organization of the Study

The dissertation is separated into five separate chapters. Chapter 1 presented the statement of the problem, purpose of the study, research questions, and significance of the study. This chapter also included limitations, assumption, definitions, and the organization of the study. In Chapter 2, the dissertation reviewed literature, dissertations, and articles relating to dual enrollment, self-directed learning, pedagogy and andragogy. The dissertation used this

information as the base to develop the rest of the study. Chapter 3 deals with methods, data collection and data analysis. Presenting the findings of the research is what Chapter 4 accomplished. The last Chapter, Chapter 5, provides a summary of the study and conclusions, implications, and recommendations.

## CHAPTER 2

### LITERATURE REVIEW

#### Introduction

This chapter examines historical and current literature related to United States education, dual enrollment, adult learners, self-direct learning strategies and teaching methodologies. Other areas reviewed in this chapter are andragogy and pedagogy. The chapter will restate the purpose of the study and the research question. The largest section of the chapter will be the Background/Section portion of the chapter. History of education in America discusses the start of educational system then skips to labor law impact. The section will explain some ideas around the first colleges and then touch the idea of dual enrollment. This will leave a transition to the topic of dual enrollment. The section contains three sections: 1) concept, 2) benefit, and 3) problems. Last two major sections under Background/History pertain to Pedagogy and Andragogy.

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### Background/History

This section covers the background and history of adult education. Areas that covered are Pedagogy, Andragogy, Self-Direct Learner, Self-Directed learning examples, industry shift from traditional teaching methods to self-direct learning styles, effects of self-directed learning capabilities have on the success individuals able to achieve over time and personal Learning Strategies.

#### History

##### New World

Plymouth Massachusetts colonized in the first quarter of the 16th century. Because of the Puritans experience with the Church of England, they wanted to limit pastoral power. In their view, power should reside with the congregation. As non-puritans arrived, they had no choice but to adapt into this system. This system included the appointment of teachers by at least two early church congregations (Perrin, 1896). The growth of immigrants, around 20,000 by

1640, resulted in this model reproduced throughout the colonies (Cohen, 1974). Children's classes began in traditional one-room classroom schools with multiple levels in attendance. The main lessons were reading and writing so the learner could become a functioning member of the community. Reading was important so students can read their Bibles and let religious education serve as their moral compass. A study by Murtin (2010) showed that the immigrants had 4.6 average years of schooling compared to 8.87 years of second or more generation Americans students. The study took examined the years from 1885 to 1920.

### Industrial Revolution

In Chicago, America's first female police officer said "frail little things" when saw a child working in the manufacturing plant (Mastony, 2010). Owens was an officer who was responsible for enforcing the child labor laws in Chicago; she served from 1891 to 1923. In the article in the LA Times, it further explains she felt like she was helping women and children. The comment was about a 7-year boy working in a factory (Mastony, 2010). The enactment of national labor laws resulted in restricting child labor or in some case a complete prohibition. Children ages ten to fourteen found school became compulsory. The minimum attendance was six months per year with adverse consequences if the children did not attend (Barry Simpson, 2003). Governments at all levels created laws requiring school attendance through senior year mandatory for school age children in the majority of America.

### First Colleges

The college system began as a place to educate children of the affluent. Typically, the college of the father would be the college of choice for the male offspring. Females, largely, were not college educated. Occasionally a person of lessor means made the great leap into a college but it was an exception. World War II revolutionized education. The exposé of service

members to new and varied experiences resulted directly from overseas travel. These new experiences caused many to change their perceptions of the post war world and gave them skills that were different from their fathers. At the same time, women's exposure to the world of work and in jobs traditionally held by men caused a new desire to work outside the home. Many individuals sought to return to their pre-war roles. Those who desired to work outside the home eventually led to a new market for the two-year or community college. Geller (2001) divided the community college into different phases. The first generation started around 1900. In this generation, the community college was in the extension phase. The college mailed out correspondence courses and individuals completed for credits. The second generation started around 1930 and the growth of junior colleges attendance from returning service members and the depression. However, there was no real increase of the number of colleges in America (Geller, 2001). In 1950, the Government Issue Bill (G.I. Bill) passed into law and allowed a draftee deferment if he was a full time college student. These two things pushed enrollment in the 400 community colleges, known as the community college generation (Geller, 2001).

New Idea,

Today there are programs where students in high school can start college and gain credit for a college classes. Many classes are located at the high school or a special vocational section of the high school. Sometimes there are small fees, but they are limited and in no way close to what a student would have to pay once they leave high school. These programs are nationwide. The goal of the program is to increase the number of high school students attending college. The main target of these programs are the non-traditional college student. The non-traditional college student is typically older or less affluent than the traditional college student. The program still attracts many of the traditional students (Johnson, 2009).

## Dual Enrollment

### Concept.

Dual Enrollment means that selected Junior and Senior level students in High School can chose to take college classes. These students receive course credits for passing classes that they would normally have to take in their first year in college (Dual Enrollment Benefits, 2014). Students receive High School and college credit at the same time from these classes. Selected Dual Enrollment program classes complement high school classes, for example, auto shop and manufacturing classes (Zaretsky, 2015). School districts are receiving pressure to make these programs more available to students. Florida legislators are requiring High School districts to develop Dual Enrollment and other programs for their Students (Martin, 2015). To increase enrollment during the declining community college enrollments, many states and local governments developed dual enrolment programs as a way to increase enrollments (Erdley, 2015).

### Benefits.

Dual enrollment credits and boast of many benefits. One is helping High School students get into the college of their choice. Another one is teaching students to handle the online learning environment. Some colleges and Universities treat students that complete a year's worth of dual enrollment courses as a transfer student and eliminate the need for SAT or ACT requirement (Carter, 2015). In two counties in Florida, you can be in Dual Enrolled and receive an associate's degree for little or no cost. The State of Florida provides textbooks and tuition to the high students of the Dual Enrollment program (Martin, 2015). Some programs like auto shop and manufacturing can be part of the Dual Enrollment program. These programs allow more than just the highly advanced students to gain college credit (Zaretsky, 2015). Students

participating in these programs have enrolled and graduated from college in higher numbers than traditional students graduate. They also had higher grade point averages than traditional students did (What we know, 2012). Miami-Dade County Public Schools high school graduates plan to attend college at a rate of nearing 94 percent. The main reason for this is the availability of dual enrollment programs in South Florida high schools (Education Briefs, 2015).

#### Problems.

One problem with dual enrollment is the high school calendar conflicting with the college calendar. This can and does increase the difficulty of students trying to participate in dual enrollment classes (Rodriguez, 2013). A few Community Colleges are facing budget cuts and lack teachers to support the classes needed (Dunn, 2010). A summary issue is high school students not receiving the same quality education as those who go on to the college. California was trying to recoup \$3 million from its Community Colleges over a five-year period. A couple of California community college claimed to report inflated dual enrolment numbers. The ones hurt most by this are the students that could have had the program in their school (First Report, 2003).

#### Pedagogy

##### Beginning.

The term Pedagogy, as used in this paper defines the relationship between the learner and the teacher as teacher centered. This is common method of instruction from kindergarten through twelfth grade in the United States. Teachers typically requires students to remember times tables or spelling words. These students experience weekly testing to see if they have mastered the words or math problems. Pedagogy style uses rote memorization, exams and drills (Knowles, Holton & Swanson, 2015). Critical areas all children require are reading, writing and

arithmetic. Most children have little idea what they want to do with the rest of their life.

Nodding (2015) noted that a child has a shorter attention span than that of an adult, due to adults being able developing the ability to focus. The focus comes from modulating the sensory information, which they have learned overtime. The author felt that children with sensory integration issues would even have a harder time to focus (Nodding, 2012). Pedagogy sometimes is looked as a poor teaching method. This is a gross generalization not supported by experience. An example, the military pedagogical teaching method works very well, especially while in basic training. An a article from the Concord Monitor shows that the military is so strict on discipline that a son, who is a soldier, delayed surgery-giving kidney to mother until the military performs testing on soldier. The soldier is the critical part of the military and the military used pedagogical methods to ensure that all members understand the core values. If the soldier is unable to perform his duties as a soldier, he will not give up his kidney. Mother pronounced by Army absence without leave, fighting custody for her child, when it takes too long. This shows how serious Army takes discipline (Some, 2007). Army leadership from bottom to top think alike. The civilian community would maybe look the other way for this soldier, especially for fighting for child, taking more days away from station than authorized. The pedagogical method has developed a like-minded military force. A study conducted by Bush (2009) showed that pedagogical method is the preferred for teaching discipline with a company or organization (Bush, 2009). In this organization, random thought or action cannot occur, thinking alike and performing as a group is required, and the use of pedagogical teaching style is preferred over andragogical.

### Elementary.

Elementary school teachers learning environment continues to be diverse. They deal with on daily basis different cultures, races, languages, social economic status levels and other complex issues related to learning. Hazel and Allen (2013) discussed that to reform schools to teach the same across the nation there was need for transformation of pedagogical practices. Some schools have put pedagogical leadership plans in place as a way to overcome these barriers. Pedagogical leadership deals with student centered teaching (Male & Palaiologou, 2015). Using pedagogical leadership in these schools, Principals, Administrators and Teachers refuse to lower the standards and face the issues or differences and then overcome the obstacles to learning faced by the students (Ärlestig, & Törnsten, 2014). Fifth and sixth graders watched videos to help them develop self-directed learning on homework during a research study in 2013. The experimental group that watched the videos did significantly better than the control group who did not watch the videos (Eker, 2013). This shows that self-directed learning might be a value by all ages. Research conducted in 2011 by Ricca showed that the new devices like phone, iPod and iPad are making children at younger age's self-directed learners (Ricci, 2011).

### High Schools.

A research study performed in a high school self-directed learning and achievement of a Chemistry class. The classes took the pre-test and post-test on the same day with the same material on it. One class had teacher led instructions and the other had student-direct activity-based learning assignments. The results showed that the class with the teacher led instructions did better than student-direct activity-based learning assignments. The researchers feels due to the size and time of the study requires much more research to get any recommendations (Bassett,

Martinez, & Martin, 2014). This is a strong indicator that high schoolers have not develop the self-directed learning skill at this time.

College.

The pedagogical style has continued in college academic classes across America to this very day. An example pointed out in an article written by Madson, Trafimow, & Gutowitz (2014), which, showed that 45 percent of college professors still use lecture as primary teaching method. They also discussed that it was not due to the lack of knowledge of interactive teaching methods. The authors said that a change to student centered learning only could take place if college management team focus developed to change perception (Madson, Trafimow, & Gutowitz, 2014). The pedagogy style is a style of extensive lectures, rote memorization, exams and drills (Knowles, Holton & Swanson, 2015). Nurses need continuing education credits to keep certifications. A recent article showed that there use to be only one way to get these continuing education credits was the traditional classroom. Now the University of Alaska is trying to offer an alternative to the traditional classroom. They hired a facilitator to help self-directed learners to complete online courses in lieu of the traditional classroom. The article shows that it has increased completion rate to the national average of online courses by having a facilitator guide the students through the online process (Armstrong et al., 2013). A study published in 2009 showed Preclinical students desire to learn from external ways. They would rather learn from the internet, a friend, or fellow classmate than ask staff or faculty a question. The recommendation from the study was to guide the student into collaborative learning (Raidal & Volet, 2009).



## Andragogy

### Adult Student.

In the previous two sections, there was an example of Pedagogy and then Andragogy. The use of Pedagogy can be historically document back for hundreds of years and is an effective way to teach children. After World War II, there was increase of Adult learning and Pedagogy method was in use (Geller, 2001). Still today, many instructors still use pedagogical method (Madson, Trafimow, & Gutowitz, 2014). With the increase of adult students, some instructor found that adult student learning and expectations were quite different from the recent high school graduate student. Students wanted to know more and asked more questions. They expected to learn something each time the class met. They want the class to relate to outside world, they desire the course material to have relevancy. The student was not new to the world, but instead came to the class with life experiences (Knowles, Holton & Swanson, 2015).

### *Relevancy.*

Learning something must be clearly associated to a reason. A recent article (Lucas, 2005) it noted that the rise of do-it-yourself television shows. This demonstrates that people are willing to sit down and watch a show that teaches a skill that they will use in their spare time. The information given to the learner relevant to the subject is of key importance to the adult learner and those that want to use the information later in life (Lucas, 2005).

### *Experience.*

A desire to share from real life experience is a contrast between the adult and adolescent learner. Formal school may frighten the adult learner; they have used a different type of learning skills in the real world. If the experience the adult learner received when they were an adolescent was bad, then this has a chance to heighten the fear as an adult learner (Lucas, 2005).

If an adult goes back to school for an official certification in a field they been working in, they may know more than the instructor. The students can learn from each other and this should be encouraged in adult classes where appropriate.

#### *Instructors Status.*

No longer can the instructor be solely a lecturer; an instructor of adults is well serve to become a facilitator. Social activity is a learning activity for the adult learner. Instructors should use problem solving and hands on training to meet the preferences of their students (Lucas, 2005). The instructor can lose creditability easily with the adult students when they contradict an adult student's life experience. The challenges of teaching adults are different from the challenges of teaching children, but can be completely rewarding. A study conducted by Anjum & Ullah (2011) using reading comprehension supports the idea of moving into a more andragogical methodology when teaching. Using two experiment groups, the study showed that the andragogical method perform better that the pedagogical method.

#### *Online Learning.*

The use of hyperlinks within online college enables learners to access large amounts of information. Chou (2013) looked into the effects of an Instructor provided Concept Map. These maps would guide the students through the hyperlink material ensuring that they receive what they need from that link and move on before they were overloaded. The study examined the effects for those with high level of self-direct learning skills verse those that did not have so high of skills. The instructor concept map allowed all to learn at the same level, no matter the level of self-directed learning skill possessed (Chou, 2013). Instructors have to assist or guide a student even in an online course.

### *Egyptian Challenge.*

A 2012 study of the effect of computer-mediated delivery as well as Webquest instruction to business education teachers. The survey question specifically addressed how these instructions effected the teachers' self-directed learning and teaching performance. The data revealed flaws in teacher creativity relative to self-direct learner skills. The survey recommended additional training to see if learner self-directness could be further enhanced (Abdelaziz, 2012). The instructor as shown by this study needs to develop his or her own self-directed learning skills.

### *Self-directed Learning.*

The recognition of self-directed learners around the world is increasing. Many industries and educational bodies are trying to find out how to be more effective and they are discovering that Self-Directed Learning is a critical component to their success.

### *Identifying.*

The traits of a self-directed learner are relative easy to identify. The first trait is that students expect instructors to teach every time the class meets or even more importantly, the students expects to learn something. A group project often show more effective than lectures. Students use this time to learn from each other. The project cannot be busy work though or just a drill, self-direct learners want more for their time or resources. A second trait is that the students perceive that they will need this information or skill in the future. The more they know they are going to use the information, they more they are engaged in the class. The instructor might have difficulties at times, but it can aid in teaching if they make this connection. The third trait is that the student will ask many questions. These students usually show interest in what the instructor says and does. If they do not understand something, they make sure the instructor knows it.

### *Nurses Educational Learning.*

Cadorin, et al (2012) conducted a study of nursing professionals and students from 2009 to 2010. The goal of the study was to see if there was a relationship between their competency and their use of self-directed learning. A questionnaire was developed and handed out at a conference where all levels of nurses attended. Data collected came from the returned questionnaires. The result indicated a correlation between lifelong learners and self-directed in learning. The study concluded the need for further research of the nurses' education to develop self-directedness in their learning continuum.

### *Student Center learning.*

Hubball and West (2009) wrote an article on how academic lesson planning traditionally takes place. It usually starts with a focus on standards established independently of the student. When this occurs, the overlooking of student needs can happen. The article also highlighted the fact that when the children are dropped off in the woods, they will come up with games on their own. Using imagination, they will make rules to guide their game. The accomplishment of the game happens without adult input. Hubball & West (2009) article then demonstrated that with a minimum of teacher guidance learning could occur the same way. Teacher inquiry as to the decision making process, may demonstrate greater insight than using written examination (Hubball & West, 2009).

### *Libraries.*

A study conducted to learn how students used the library for learning showed interesting information. A focus group conducted of several universities humanities students in their sophomore through senior year found that students did not chose to seek assistance from librarians. The students would rather seek information from their peers and other informal

channels. The study provided recommendations to librarians to purpose them to interact with students in ways different from the traditional interaction. Librarians need to support the way adult learner uses information sharing and informal learning (Murphy, 2014).

### *Digital Era.*

Karakas & Manisaligil (2012) wrote a paper that discussed the effects of Web 2.0 on workplace training. Web 2.0 has allowed for increased connectivity for everyone online. Those in the workplace responsible for training can take advantage of newly developed resource; the question asked by the paper, what if human resource developers used the new digital connectivity and self-directed learning. During the research, they concluded that self-directed learners were naturally curious, and accepted the openness of the digital age. If human resource developers did allowed for self-directed learning and use of resources like Web 2.0 many new learning opportunities would appear for the employee. This would allow the employee to gain knowledge across borders and languages. In the end all this would benefit the company (Karakas & Manisaligil, 2012).

### *Communications.*

Industry is calling for greater quality manufacturing. Irani, Sharp, and Kagioglou (1997) co-author a paper that discusses where a case experience uses team-based learning. The critical part of team-based learning is self-directedness learning. In small and medium sizes enterprises, a self-directed work team is responsible for an entire process. They cross train on equipment, recommend improvements, and focus on just in time manufacturing. This team having ownership and ability to learn on what they want has proven to take a large load off mangers.

### *Malaysian Managers.*

Hashim (2008) conducted a study on Malaysia managers. The study found a link between successful managers and some common traits they shared. First, these managers had knowledge and skill. Second that they knew how to work as a team. Effective self-directed learners was the last trait they had in common. Most manger employees learned at work or on the job. Managers, who knew how their employees learned and adapted programs to them, were some of the most successful.

### *Learning Disabilities.*

In the United Kingdom research is being accomplish to show that people with learning disabilities learn best from self-direct learning. The issue is removal of barriers may inhibit learning. One barrier is the general knowledge of the self-directed support that is available. The research also comments on that the wide varieties of disabilities and severity can great effect the support needed. The focus was on how they could overcome these barriers so even those with learning disabilities could become self-directed learners (Harkes, Brown, & Horsburgh, 2014). Self-directed learning methods pose a chance of helping Intellectual disabilities, however in order to make this claim more research is required (Learning, 2014).

### *College Modality.*

Students' enrolment in online college classes continue to increase. Face-to-Face classes began decreasing. A 2005 study examined the level of Self-Directed Learning readiness of Taiwanese college students. The findings showed the readiness level of distant learning students were greater than those in traditional classroom were. It could not predict the success or failure of a student by a person readiness level. The research also showed that Taiwan is lagging behind the American concept of Self-Directed Learning and relays heavily on traditional methods of

teaching such as lecture, exams and rote memorization (Yu-Chiung Hsu, & Ya-Ming Shiue, 2005).

#### *Australian Enterprises.*

A 2007 paper examined the feasibility for business to employ Self-Directed Learning for company training. It used twelve Australian enterprises that were introducing Self-Directed Learning into training programs. In order to remain competitive these businesses employed self-directive learning principles for their employee training. One issue identified was that some employees wanted the traditional training method. The biggest challenge identified was moving from manager or instructor center learning to individual center learning (Smith, Sadler-Smith, Robertson, & Wakefield, 2007).

#### *Making Connections.*

Successful companies have a Human Resource Development plan structure around the idea of the Learning companies. Cho (2002) asks the question does having Self-Directed Learning aid the Learning company or not? One section of the article recognized that Self-Directed Learning aids personal growth, and at the same time it increases interaction and collaborations (Cho, 2002).

#### *Corporate Training.*

Based on an article in 1997, U.S. businesses report spending over 59 billion dollars per year to train employees. A company like Motorola is using Self-directed learning in its human Resource Training. Ever-advancing technology caused Motorola to change how it teaches its employees. The development of each training plan centers on the skills needed by the employee, using a learner centered approach. The crediting of the approach continues for saving time and money by focusing on how a person learns (Guglielmino & Murdick, 1997).

### *Change in Method.*

A study completed in 2010 by Pryce-Miller posted in Nursing Times questioned whether the first year students are ready for a change to self-directed learning. The study focused on the University of Wolverhampton and all three of the universities schools of health participated in the study. The findings and recommendations showed increased emphasis on development of student self-directed learning skills were in order (Pryce-Miller, 2010). Lunyk-Child et al (2001) examined programs emphasizing self-directed. They found that teachers did not teach the class the same way and had different expectations. The students experience self-direct learning in wide variance. The last issued exposed was the variance of the level of student satisfaction. One student expectation will be different from another's. If the student did not meet their desire outcome, realistic or not, they can view the class as a failure.

### *New Ideas.*

An empirical study conducted to see how first year college students in a group could develop their self-direct learning skills was conducted by Warburton & Volet (2013). There was significate data collected to show that the students used new resources and strategies for examination preparation. The attitude of the participant towards the study directly influenced their quality of learning (Warburton & Volet, 2013).

### Summary

This section restated the purpose of study and the research questions. The Background/History section contained most of the research of relative literature. In summary, the American education system has changed many times over the years. Dual Enrollment continues as a possible solution to many issues with high schools students not enrolling, failing community colleges, and having to take remediation math and science course when they get



there. The Dual enrollment program has accomplished many outstanding achievements. Even though there are many achievements to dual enrollment courses credited, there some issues that have arose to question them. Industry is looking for Self-Directed Learners to be able to adjust the ever-changing automation. Training programs within industries around the globe are focusing on Self-Directed Learners programs for their employees.

## CHAPTER 3

### METHODS

#### Introduction

This chapter describes the data collection methods, and the instrument utilized, Motivated Strategies for Learning Questionnaire (MSLQ) (Pintrich & DeGroot, 1990). The chapter also addresses data analysis and interpretation. Lastly, a summary of methods used can be found at the end of this chapter.

#### Purpose of the Study

The purpose of this study was to examine differences between dual enrollment and traditional students in a community college in the southeast region of Alabama. This study identified the extent students of the dual enrollment programs used Self-directed learning strategies in comparison to the traditional community college students. Dual enrollment students have an easier adjustment to college than traditional students (Jester, 2006). High School students in dual enrollment program earn college credit and then graduate earlier than traditional students. This makes dual enrollment college graduation and/or integration into the workplace quicker (Townsend, 2000). Encouraging high school students to become self-directed learners during their junior or senior year while taking a dual enrollment course might serve as the catalyst to self-directedness.

#### Research Questions

This study used the following research questions:

- 1) What are the Self-directed learning strategies of students who were dual enrolled?

- 2) What are the Self-directed learning strategies of students who were not dual enrolled?
- 3) What are the differences in Self-directed learning strategies between dual enrolled and not dual enrolled students?

### Institutional Review Board

The researcher's initial step was to receive Institutional Review Board (IRB) approval. (See Appendix A). The researcher completed the Collaborative Institutional Training Initiative (CITI) courses. The researcher decided use with an already developed survey instrument. The chosen survey instrument was the Motivated Strategies for Learning Questionnaire (MSLQ) (See Appendix B) for this study. A permission letter from the president of Enterprise State Community College (See Appendix C) completed the Institutional Review Board (IRB) approval. Researcher submitted certificates, letter, survey instrument and completed IRB form.

### Survey Instrument

Survey questions were submitted using Qualtrics. Included in each Qualtrics survey link was a letter of consent (See Appendix A). Several demographic questions were added to the Motivated Strategies for Learning Questionnaire (MSLQ). First was a question to eliminate any student under the age of 18 from taking the survey. Second question added dealt with dual enrollment. Third was gender. Fourth was ethnicity. This survey instrument was submitted to the Institutional Review Board (IRB) and approved (See Appendix A).

### MSLQ

#### Reliability

A study conducted by Taylor in 2012 found that the Motivated Strategies for Learning Questionnaire (MSLQ) that a strong measure of confidence this study could be use in a variety of

different samples and remains reliable. His findings found .61 and .88 average for reliabilities coefficient ranges. The learning strategies scales is the low and the motivation scale is the high.

This study showed that the study is reliable and valid instrument for this study.

## Sample

Pintrich and De Groot conducted research in 1990 using a version of Motivated Strategies for Learning Questionnaire (MSLQ) to demonstrate the motivation and self-regulated learning components of classroom academic Performance. The study showed that if a student had strong self-efficacy they had a better they would perform in school. Another finding of this study showed that if the student were interested in the material, more than just getting a good grade, the better the outcome would be. The study used had 56 question, but only 44 were use in their study. These are the same 44 questions used in this study. Each question will give a participant a chance to score from 1 to 5 per question. The highest total score would be a 220 for a signal participant. The minimum a participant total score is 44. Each participant is ask on 1 to 5 scale how much this statement represent him or her. The more it represents them the higher the higher number they select with 5 being the highest. The less it represents them the lower number they select with 1 being the lowest. The score on each question is dependent on the statement. Statements sometimes are scored 1 = 1, 2 = 2, 3 = 3, 4 = 4, and 5 = 5. If the statement is a reverse score 1 = 5, 2 = 4, 3 = 3, 4 = 2, and 5 = 1. The higher the score on any question the more self-efficacy or internal motivation the participant has. This version of the MSLQ is used numerous studies over the years (Spar, 2015), (Atwood-Blaine, 2015), (Krieger, 2014), (Liu, Woon Chia, et al, 2014) and (Yancy, 2012). There are domains in the MSLQ normally. All question are usually evaluated in one of these domains. In order to examine any possible effect on the research questions the forty-four MLSQ questions will be look at each individually.

## Qualtric

The Motivated Strategies for Learning Questionnaire (MSLQ) and additional demographics questions were inputted into Qualtrics. Qualtrics allowed the researcher to put a elimination question as the first question. This elimination question prevented minors from taking the survey, other than the first question. Once inputted into Qualtrics, the survey was reviewed by Dr. Witte. Dr. Witte recommended changes and the survey was adjusted using those changes. The researcher and Dr. Witte reviewed the Qualtric survey making sure that it function as advertised. Dr. Witte cleared the Qualtric survey for distribution.

## Participants

Participant's came from the current Enterprise State Community College student body. All participants were volunteers and the survey typically took less than 15 minutes to complete. The information collected was completely anonymous. Participants received no benefits or compensation from participating in the study. There was a cost of class time and use of computer labs to Enterprise Community College. The survey was coordinated with instructors to reduce or eliminate time away from the current class curriculum. The majority of volunteers came from the technical program of the college, specifically those courses that were part of the FAA Airframe and Powerplant certification process.

## Data Collection

Students from Enterprise State Community College were invited to participate in the study. The instructor read a flyer that had been placed in their box, informing them of the opportunity for their students to take the survey. Instructors allowed student from their classes to go to the computer lab. The computer labs at Enterprise Community College were used for the study. The Qualtrics survey link was used and students were instructed on its use. Participants

completed the survey and then left the computer lab. The survey created a generic number for each participant. This generic number provided a way to track the participant data without identifying the participant. A total 92 participants completed the survey.

### Data Analysis

The required transfer of data from Qualtrics to SPSS for analysis took place after the completion of the surveys. Values were formatted to provide the desired outcomes. Some questions were in reverse, so output had to be changed (1=5, 2=4, 3=3, 4=2, and 5=1).

Descriptive data was compiled as a general overview. This required separating dual enrollment from traditional student data. Next, an independent sample t-test was use to look at the data.

The independent variable was Dual Enrollment or Traditional. The t-test was ran to examine the following dependent variables individually: overall score, gender, and questions 1 through 44.

Then lastly, individual questions were analyzed for any significance.

### Summary

The chapter covered the purpose of the study and research questions. The methods section of this chapter discussed the Institutional Review Board (IRB) approval process. The last part of the methods section discussed how participant selection took place. The data collection and data analysis sections explained in how the collection, storage, and analysis of the data were conducted.

## CHAPTER 4

### FINDINGS

#### Introduction

This chapter provides the findings of the research study. The chapter will further discuss the findings, using SPSs, and examining the relationship between those who participated in dual enrollment and those who went to college the traditional way.

#### Purpose of the Study

The purpose of this study was to examine differences between dual enrollment and traditional students in a community college in the southeast region of Alabama. This study identified the extent students of the dual enrollment programs used Self-directed learning strategies in comparison to the traditional community college students. Dual enrollment students have an easier adjustment to college than traditional students (Jester, 2006). High School students in dual enrollment program earn college credit and then graduate earlier than traditional students. This makes dual enrollment college graduation and/or integration into the workplace quicker (Townsend, 2000). Encouraging high school students to become self-directed learners during their junior or senior year while taking a dual enrollment course might serve as the catalyst to self-directedness.

#### Research Questions

This study used the following research questions:

- 1) What are the Self-directed learning strategies of students who were dual enrolled?
- 2) What are the Self-directed learning strategies of students who were not dual enrolled?

- 3) What are the differences in Self-directed learning strategies between dual enrolled and not dual enrolled students?

## Results

### Descriptive Data

#### Participants

Data was collected from participants enrolled in Enterprise State Community College, in good standing, male or female, any ethnicity and at least age 18. Qualtrics was used to distribute the survey instrument. The researcher used the MSLQ survey letter of consent, and demographic questions into the Qualtrics format. One hundred and six participants attempted the survey. The age question eliminated fourteen of them from answering the survey. Ninety-two participants completed the survey. Forty had identified themselves as dual enrollment participants. The remaining fifty-two participants were considered traditional students for purpose of this dissertation. An English class during the day would of taken the survey, but 100 percent of the students were dual enrollment students under the age of 18. There were approximately 30 students that would of participated in this survey.

Table 1

#### *Distribution of Participants by Dual Enrollment and Traditional*

Participant Category	<i>n</i>	%
Dual Enrollment	40	43.5
Traditional	52	56.5

*Note: N=92*

Score

The MSLQ survey used had 44 questions that were used to determine a person MSLQ score. A participant can answer each question on a 1 to 5 scale, this is also known as a Likert scale. If the statement represents them they would answer a 5 and if the statement did not



represent them at all their answer would be a 1. They could answer between 1 and 5 as they felt the degree's statement represented them. Depending on the question 1 = 1point, 2 = 2 points, 3 = 3 points, 4 = 4 points and 5= 5 points or just the opposite occurred were 1 = 5point, 2 = 4 points, 3 = 3 points, 4 = 2 points and 5= 1. The lowest cumulative score could be a 44 and the highest cumulative score possible would be a 220. The researcher used data collected from Qualtrics and transferred it the SPSS software. Once in SPSS, the researcher separated the data and performed a descriptive analysis. Dual Enrollment participants scored an average cumulative score of 174.65 which means they have developed large degree of mastery as an independent adult learner with Self-directed learning strategies. The standard deviation was 22.827 with a median of 178. Traditional Participants scored an average of 174.56, which means that students have develop a large degree of mastery as an independent learner with Self-directed learning strategies. The standard deviation was 31.586 with a median of 180.

#### Comparison of Score

Table 2

#### *Participants Overall Score on Motivated Strategies for Learning Questionnaire (MSLQ)*

Overall Score	Dual Enrollment (n=40)		Traditional (n=52)	
	$\bar{X}$	SD	$\bar{X}$	SD
Score	174.65	22.827	174.56	31.586

*Note: N=92*

#### Ethnicity

The demographic question added to the survey allowed the participants to identify with one of the following ethnicities: Black or African – American, Hispanic or Latino, White, Native American or American Indian, Asian / Pacific Islander, and other. This question was placed

prior to all the MSLQ questions and will show the makeup of who took the survey. Those that participated in the study and identified Dual Enrollment participant answered the ethnicity question. The forty Dual Enrollment student's numbers were three Blacks or African – Americans, one Hispanic or Latino, thirty-five Whites, zero Native American or American Indian, one Asian / Pacific Islander, and no other. Those that participated in the study and identified as a Traditional participant answered the ethnicity question. The fifty-two Traditional student's numbers were Nine Blacks or African – Americans, two Hispanics or Latinos, thirty-six Whites, two Native Americans or American Indians, two Asians / Pacific Islanders, and one other.

Table 3

*Distribution of Ethnicity*

Ethnicity	Dual Enrollment ( <i>n</i> =40)		Traditional ( <i>n</i> =52)		Combined ( <i>N</i> =92)	
	<i>n</i>	%	<i>n</i>	%	<i>n</i>	%
Black or African - American	3	7.5	9	17.3	12	13.0
Hispanic or Latino	1	2.5	2	3.8	3	3.3
White	35	87.5	36	69.2	71	77.2
Native American or American Indian	0	0.0	2	3.8	2	2.2
Asian / Pacific Islander	1	2.5	2	3.8	3	3.3
Other	0	0.0	1	1.9	1	1.1

*Note: N = 92*

Gender

The demographic question added to the survey allowed the participants to identify what gender they were. Dual Enrollment survey participants composed of twenty-nine males and

eleven females. Traditional survey participants were composed of forty-nine males and three females. This percentage needs to be investigated further.

Table 4

*Distribution of Participants by Gender*

Gender	Dual Enrollment ( <i>n</i> =40)		Traditional ( <i>n</i> =52)		Combined ( <i>N</i> =92)	
	<i>n</i>	%	<i>n</i>	%	<i>n</i>	%
Male	29	72.5	49	94.2	78	84.8
Female	11	27.5	3	5.8	14	15.2

*Note: N=92*

Question 1

The researcher used data collected through Qualtrics and transferred it to SPSS software. Once in SPSS, the researcher split the data and performed a descriptive analysis. Question 1. I prefer class work that is challenging so I can learn new things. This question allowed participants to answer via a Likert scale 1 to 5. If the participants rated the question a one they felt the question / statement did not represent them at all and the choices gradually increased to five where the question / statement totally represented them. These points scored normally on this question (1=1, 2=2, 3=3, 4=4, and 5=5). Dual Enrollment participants scored an average of 4.35. The standard deviation was .622. Traditional participants scored an average of 3.92. The standard deviation was 1.23.

Table 5

*Participants Score on Question 1 on Motivated Strategies for Learning Questionnaire (MSLQ)*

Question 1	Dual Enrollment (n=40)		Traditional (n=52)	
	$\bar{X}$	SD	$\bar{X}$	SD
	4.35	0.622	3.92	1.234

Note: N=92

## Question 2

The researcher used data collected through Qualtrics and transferred it to SPSS software. Once in SPSS, the researcher split the data and performed a descriptive analysis. Question 2. Compared with other students in this class I expect to do well. This question allowed participants to answer via a Likert scale 1 to 5. If the participants rated the question a one they felt the question / statement did not represent them at all and the choices gradually increased to five where the question / statement totally represented them. These points scored normally on this question (1=1, 2=2, 3=3, 4=4, and 5=5). Dual Enrollment participants scored an average of 4.48. The standard deviation was .640. Traditional participants scored an average of 4.37. The standard deviation was .958. One of the traditional participants did not answer this question reducing those who answered to 51.

Table 6

*Participants Score on Question 2 on Motivated Strategies for Learning Questionnaire (MSLQ)*

Question 2	Dual Enrollment (n=40)		Traditional (n=51)	
	$\bar{X}$	SD	$\bar{X}$	SD
	4.48	0.64	4.37	0.958

Note: N=91

## Question 3

The researcher used data collected through Qualtrics and transferred it to SPSS software. Once in SPSS, the researcher split the data and performed a descriptive analysis. Question 3. I am so nervous during a test that I cannot remember facts I have learned. This question allowed participants to answer via a Likert scale 1 to 5. If the participants rated the question a one they felt the question / statement did not represent them at all and the choices gradually increased to five where the question / statement totally represented them. These points scored normally on this question (1=1, 2=2, 3=3, 4=4, and 5=5). Dual Enrollment participants scored an average of 2.30. The standard deviation was 1.159. Traditional participants scored an average of 2.47. The standard deviation was 1.433. One of the traditional participants did not answer this question reducing those who answered to 51.

Table 7

*Participants Score on Question 3 on Motivated Strategies for Learning Questionnaire (MSLQ)*

Question 3	Dual Enrollment (n=40)		Traditional (n=51)	
	$\bar{X}$	SD	$\bar{X}$	SD
	2.3	1.159	2.47	1.433

*Note: N=91*

#### Question 4

The researcher used data collected through Qualtrics and transferred it to SPSS software. Once in SPSS, the researcher split the data and performed a descriptive analysis. Question 4. It is important for me to learn what is being taught in this class. This question allowed participants to answer via a Likert scale 1 to 5. If the participants rated the question a one they felt the question

/ statement did not represent them at all and the choices gradually increased to five where the question / statement totally represented them. These points scored normally on this question (1=1, 2=2, 3=3, 4=4, and 5=5). Dual Enrollment participants scored an average of 4.63. The standard deviation was .586. Traditional participants scored an average of 4.57. The standard deviation was .831. One of the traditional participants did not answer this question reducing those who answered to 51.

Table 8

*Participants Score on Question on 4 on Motivated Strategies for Learning Questionnaire (MSLQ)*

Question 4	Dual Enrollment (n=40)		Traditional (n=51)	
	$\bar{X}$	SD	$\bar{X}$	SD
	4.63	0.586	4.57	0.831

*Note: N=91*

#### Question 5

The researcher used data collected through Qualtrics and transferred it to SPSS software. Once in SPSS, the researcher split the data and performed a descriptive analysis. Question 5. I like what I am learning in this class. This question allowed participants to answer via a Likert scale 1 to 5. If the participants rated the question a one they felt the question / statement did not represent them at all and the choices gradually increased to five where the question / statement totally represented them. These points scored normally on this question (1=1, 2=2, 3=3, 4=4, and 5=5). Dual Enrollment participants scored an average of 4.58. The standard deviation was .712. Traditional participants scored an average of 4.43. The standard deviation was 1.100. One of the traditional participants did not answer this question reducing those who answered to 51.

Table 9

*Participants Score on Question on 5 on Motivated Strategies for Learning Questionnaire (MSLQ)*

Question 5	Dual Enrollment (n=40)		Traditional (n=51)	
	$\bar{X}$	SD	$\bar{X}$	SD
	4.58	0.712	4.43	1.100

*Note: N=91*

Question 6

The researcher used data collected through Qualtrics and transferred it to SPSS software. Once in SPSS, the researcher split the data and performed a descriptive analysis. Question 6. I am certain I can understand the ideas taught in this course. This question allowed participants to answer via a Likert scale 1 to 5. If the participants rated the question a one they felt the question / statement did not represent them at all and the choices gradually increased to five where the question / statement totally represented them. These points scored normally on this question (1=1, 2=2, 3=3, 4=4, and 5=5). Dual Enrollment participants scored an average of 4.58. The standard deviation was .781. Traditional participants scored an average of 4.44. The standard deviation was .802.

Table 10

*Participants Score on Question 6 on Motivated Strategies for Learning Questionnaire (MSLQ)*

Question 6	Dual Enrollment (n=40)		Traditional (n=52)	
	$\bar{X}$	SD	$\bar{X}$	SD
	4.58	0.781	4.44	0.802

*Note: N=92*

### Question 7

The researcher used data collected through Qualtrics and transferred it to SPSS software. Once in SPSS, the researcher split the data and performed a descriptive analysis. Question 7. I think I will be able to use what I learn in this class in other classes. This question allowed participants to answer via a Likert scale 1 to 5. If the participants rated the question a one they felt the question / statement did not represent them at all and the choices gradually increased to five where the question / statement totally represented them. These points scored normally on this question (1=1, 2=2, 3=3, 4=4, and 5=5). Dual Enrollment participants scored an average of 4.48. The standard deviation was .847. Traditional participants scored an average of 4.43. The standard deviation was .900. One of the traditional participants did not answer this question reducing those who answered to 51.

Table 11

*Participants Score on Question 7 on Motivated Strategies for Learning Questionnaire (MSLQ)*

Question 7	Dual Enrollment (n=40)		Traditional (n=51)	
	$\bar{X}$	SD	$\bar{X}$	SD
	4.48	0.847	4.43	0.900

*Note: N=91*

### Question 8

The researcher used data collected through Qualtrics and transferred it to SPSS software. Once in SPSS, the researcher split the data and performed a descriptive analysis. Question 8. I expect to do very well in this class. This question allowed participants to answer via a Likert scale 1 to 5. If the participants rated the question a one they felt the question / statement did not represent



them at all and the choices gradually increased to five where the question / statement totally represented them. These points scored normally on this question (1=1, 2=2, 3=3, 4=4, and 5=5). Dual Enrollment participants scored an average of 4.43. The standard deviation was .781. Traditional Participants scored an average of 4.37. The standard deviation was .871. One of the traditional participants did not answer this question reducing those who answered to 51.

Table 12

*Participants Score on Question 8 on Motivated Strategies for Learning Questionnaire (MSLQ)*

Question 8	Dual Enrollment (n=40)		Traditional (n=51)	
	$\bar{X}$	SD	$\bar{X}$	SD
	4.43	0.781	4.37	0.871

*Note: N=91*

Question 9

The researcher used data collected through Qualtrics and transferred it to SPSS software. Once in SPSS, the researcher split the data and performed a descriptive analysis. Question 9. Compared with others in this class, I think I am a good student. This question allowed participants to answer via a Likert scale 1 to 5. If the participants rated the question a one they felt the question / statement did not represent them at all and the choices gradually increased to five where the question / statement totally represented them. These points scored normally on this question (1=1, 2=2, 3=3, 4=4, and 5=5). Dual Enrollment participants scored an average of 4.40. The standard deviation was .810. Traditional Participants scored an average of 4.57. The standard deviation was .755. One of the traditional participants did not answer this question reducing those who answered to 51.

Table 13

*Participants Score on Question 9 on Motivated Strategies for Learning Questionnaire (MSLQ)*

Question 9	Dual Enrollment (n=40)		Traditional (n=51)	
	$\bar{X}$	SD	$\bar{X}$	SD
	4.4	0.81	4.57	0.755

*Note: N=91*

Question 10

The researcher used data collected through Qualtrics and transferred it to SPSS software. Once in SPSS, the researcher split the data and performed a descriptive analysis. Question 10. I often choose paper topics I will learn something from even if they require more work. This question allowed participants to answer via a Likert scale 1 to 5. If the participants rated the question a one they felt the question / statement did not represent them at all and the choices gradually increased to five where the question / statement totally represented them. These points scored normally on this question (1=1, 2=2, 3=3, 4=4, and 5=5). Dual Enrollment participants scored an average of 3.60. The standard deviation was 1.172. Traditional Participants scored an average of 3.80. The standard deviation was 1.167. One of the traditional participants did not answer this question reducing those who answered to 51.

Table 14

*Participants Score on Question 10 on Motivated Strategies for Learning Questionnaire (MSLQ)*

Question 10	Dual Enrollment (n=40)		Traditional (n=51)	
	$\bar{X}$	SD	$\bar{X}$	SD
	3.6	1.172	3.8	1.167

*Note: N=91*

### Question 11

The researcher used data collected through Qualtrics and transferred it to SPSS software. Once in SPSS, the researcher split the data and performed a descriptive analysis. Question 11. I am sure I can do an excellent job on the problems and tasks assigned for this class. This question allowed participants to answer via a Likert scale 1 to 5. If the participants rated the question a one they felt the question / statement did not represent them at all and the choices gradually increased to five where the question / statement totally represented them. These points scored normally on this question (1=1, 2=2, 3=3, 4=4, and 5=5). Dual Enrollment participants scored an average of 4.43. The standard deviation was .781. Traditional Participants scored an average of 4.39. The standard deviation was .827. One of the traditional participants did not answer this question reducing those who answered to 51.

Table 15

*Participants Score on Question 11 on Motivated Strategies for Learning Questionnaire (MSLQ)*

Question 11	Dual Enrollment (n=40)		Traditional (n=51)	
	$\bar{X}$	SD	$\bar{X}$	SD
	4.43	0.781	4.39	0.827

*Note: N=91*

### Question 12

The researcher used data collected through Qualtrics and transferred it to SPSS software. Once in SPSS, the researcher split the data and performed a descriptive analysis. Question 12. I have an uneasy, upset feeling when I take a test. This question allowed participants to answer via a Likert scale 1 to 5. If the participants rated the question a one they felt the question / statement

did not represent them at all and the choices gradually increased to five where the question / statement totally represented them. These points scored normally on this question (1=1, 2=2, 3=3, 4=4, and 5=5). Dual Enrollment participants scored an average of 2.00. The standard deviation was 1.219. Traditional Participants scored an average of 2.73. The standard deviation was 1.524. One of the traditional participants did not answer this question reducing those who answered to 51.

Table 16

*Participants Score on Question 12 on Motivated Strategies for Learning Questionnaire (MSLQ)*

Question 12	Dual Enrollment (n=40)		Traditional (n=51)	
	$\bar{X}$	SD	$\bar{X}$	SD
	2	1.219	2.73	1.524

*Note: N=91*

### Question 13

The researcher used data collected through Qualtrics and transferred it to SPSS software. Once in SPSS, the researcher split the data and performed a descriptive analysis. Question 13. I think I will receive a good grade in this class. This question allowed participants to answer via a Likert scale 1 to 5. If the participants rated the question a one they felt the question / statement did not represent them at all and the choices gradually increased to five where the question / statement totally represented them. These points scored normally on this question (1=1, 2=2, 3=3, 4=4, and 5=5). Dual Enrollment participants scored an average of 4.54. The standard deviation was .790. One of the dual enrollment participants did not answer this question reducing

those who answered to 39. Traditional Participants scored an average of 4.48. The standard deviation was .779.

Table 17

*Participants Score on Question 13 on Motivated Strategies for Learning Questionnaire (MSLQ)*

Question 13	Dual Enrollment (n=39)		Traditional (n=52)	
	$\bar{X}$	SD	$\bar{X}$	SD
	4.54	0.790	4.48	0.779

*Note: N=91*

Question 14

The researcher used data collected through Qualtrics and transferred it to SPSS software. Once in SPSS, the researcher split the data and performed a descriptive analysis. Question 14. Even when I do poorly on a test, I try to learn from my mistakes. This question allowed participants to answer via a Likert scale 1 to 5. If the participants rated the question a one they felt the question / statement did not represent them at all and the choices gradually increased to five where the question / statement totally represented them. These points scored normally on this question (1=1, 2=2, 3=3, 4=4, and 5=5). Dual Enrollment participants scored an average of 4.23. The standard deviation was 1.121. Traditional Participants scored an average of 4.53. The standard deviation was .857. One of the traditional participants did not answer this question reducing those who answered to 51.

Table 18

*Participants Score on Question 14 on Motivated Strategies for Learning Questionnaire (MSLQ)*

Question 14	Dual Enrollment (n=40)		Traditional (n=51)	
	$\bar{X}$	SD	$\bar{X}$	SD
	4.23	1.121	4.53	0.857

*Note: N=91*

Question 15

The researcher used data collected through Qualtrics and transferred it to SPSS software. Once in SPSS, the researcher split the data and performed a descriptive analysis. Question 15. I think that what I am learning in this class is useful for me to know. This question allowed participants to answer via a Likert scale 1 to 5. If the participants rated the question a one they felt the question / statement did not represent them at all and the choices gradually increased to five where the question / statement totally represented them. These points scored normally on this question (1=1, 2=2, 3=3, 4=4, and 5=5). Dual Enrollment participants scored an average of 4.65. The standard deviation was .736. Traditional Participants scored an average of 4.51. The standard deviation was .857. One of the traditional participants did not answer this question reducing those who answered to 51.

Table 19

*Participants Score on Question 15 on Motivated Strategies for Learning Questionnaire (MSLQ)*

Question 15	Dual Enrollment (n=40)		Traditional (n=51)	
	$\bar{X}$	SD	$\bar{X}$	SD
	4.65	0.736	4.51	0.857

*Note: N=91*

### Question 16

The researcher used data collected through Qualtrics and transferred it to SPSS software. Once in SPSS, the researcher split the data and performed a descriptive analysis. Question 16. My study skills are excellent compared with others in this class. This question allowed participants to answer via a Likert scale 1 to 5. If the participants rated the question a one they felt the question / statement did not represent them at all and the choices gradually increased to five where the question / statement totally represented them. These points scored normally on this question (1=1, 2=2, 3=3, 4=4, and 5=5). Dual Enrollment participants scored an average of 3.55. The standard deviation was .921. Two of the dual enrollment participants did not answer this question reducing those who answered to 38. Traditional Participants scored an average of 3.53. The standard deviation was 1.138. One of the traditional participants did not answer this question reducing those who answered to 51.

Table 20

*Participants Score on Question 16 on Motivated Strategies for Learning Questionnaire (MSLQ)*

Question 16	Dual Enrollment (n=38)		Traditional (n=51)	
	$\bar{X}$	SD	$\bar{X}$	SD
	3.55	0.921	3.53	1.138

*Note: N=89*

### Question 17

The researcher used data collected through Qualtrics and transferred it to SPSS software. Once in SPSS, the researcher split the data and performed a descriptive analysis. Question 17. I think that what we are learning in this class is interesting. This question allowed participants to

answer via a Likert scale 1 to 5. If the participants rated the question a one they felt the question / statement did not represent them at all and the choices gradually increased to five where the question / statement totally represented them. These points scored normally on this question (1=1, 2=2, 3=3, 4=4, and 5=5). Dual Enrollment participants scored an average of 4.26. The standard deviation was .978. Two of the dual enrollment participants did not answer this question reducing those who answered to 38. Traditional Participants scored an average of 4.12. The standard deviation was 1.194. One of the traditional participants did not answer this question reducing those who answered to 51.

Table 21

*Participants Score on Question 17 on Motivated Strategies for Learning Questionnaire (MSLQ)*

Question 17	Dual Enrollment (n=40)		Traditional (n=52)	
	$\bar{X}$	SD	$\bar{X}$	SD
	4.26	0.978	4.12	1.194

*Note: N=92*

### Question 18

The researcher used data collected through Qualtrics and transferred it to SPSS software. Once in SPSS, the researcher split the data and performed a descriptive analysis. Question 18. Compared with other students in this class I think I know a great deal about the subject. This question allowed participants to answer via a Likert scale 1 to 5. If the participants rated the question a one they felt the question / statement did not represent them at all and the choices gradually increased to five where the question / statement totally represented them. These points scored normally on this question (1=1, 2=2, 3=3, 4=4, and 5=5). Dual Enrollment participants



scored an average of 3.84. The standard deviation was .973. Two of the dual enrollment participants did not answer this question reducing those who answered to 38. Traditional Participants scored an average of 3.69. The standard deviation was 1.122. One of the traditional participants did not answer this question reducing those who answered to 51

Table 22

*Participants Score on Question 18 on Motivated Strategies for Learning Questionnaire (MSLQ)*

Question 18	Dual Enrollment (n=38)		Traditional (n=51)	
	$\bar{X}$	SD	$\bar{X}$	SD
	3.84	0.973	3.69	1.122

*Note: N=89*

#### Question 19

The researcher used data collected through Qualtrics and transferred it to SPSS software. Once in SPSS, the researcher split the data and performed a descriptive analysis. Question 19. I know that I will be able to learn the material for this class. This question allowed participants to answer via a Likert scale 1 to 5. If the participants rated the question a one they felt the question / statement did not represent them at all and the choices gradually increased to five where the question / statement totally represented them. These points scored normally on this question (1=1, 2=2, 3=3, 4=4, and 5=5). Dual Enrollment participants scored an average of 4.42. The standard deviation was .793. Two of the dual enrollment participants did not answer this question reducing those who answered to 38. Traditional Participants scored an average of 4.35. The standard deviation was .883.

Table  
23

*Participants Score on Question 19 on Motivated Strategies for Learning Questionnaire (MSLQ)*

Question 19	Dual Enrollment (n=38)		Traditional (n=52)	
	$\bar{X}$	SD	$\bar{X}$	SD
	4.42	0.79 3	4.35 3	0.88

*Note: N=90*

Question 20

The researcher used data collected through Qualtrics and transferred it to SPSS software. Once in SPSS, the researcher split the data and performed a descriptive analysis. Question 20. I worry a great deal about tests. This question allowed participants to answer via a Likert scale 1 to 5. If the participants rated the question a one they felt the question / statement did not represent them at all and the choices gradually increased to five where the question / statement totally represented them. These points scored normally on this question (1=1, 2=2, 3=3, 4=4, and 5=5).

Dual Enrollment participants scored an average of 2.61. The standard deviation was 1.306. Two of the dual enrollment participants did not answer this question reducing those who answered to 38.

Traditional Participants scored an average of 2.98. The standard deviation was 1.679. One of the traditional participants did not answer this question reducing those who answered to 51.

Table 24

*Participants Score on Question 20 on Motivated Strategies for Learning Questionnaire (MSLQ)*

Question 20	Dual Enrollment (n=38)		Traditional (n=51)	
	$\bar{X}$	SD	$\bar{X}$	SD
	2.61	1.306	2.98	1.679

*Note: N=89*

#### Question 21

The researcher used data collected through Qualtrics and transferred it to SPSS software. Once in SPSS, the researcher split the data and performed a descriptive analysis. Question 21. Understanding this subject is important to me. This question allowed participants to answer via a Likert scale 1 to 5. If the participants rated the question a one they felt the question / statement did not represent them at all and the choices gradually increased to five where the question / statement totally represented them. These points scored normally on this question (1=1, 2=2, 3=3, 4=4, and 5=5). Dual Enrollment participants scored an average of 4.40. The standard deviation was .900. Traditional Participants scored an average of 4.44. The standard deviation was .850.

Table 25

*Participants Score on Question 21 on Motivated Strategies for Learning Questionnaire (MSLQ)*

Question 21	Dual Enrollment (n=40)		Traditional (n=52)	
	$\bar{X}$	SD	$\bar{X}$	SD
	4.4	0.9	4.44	0.850

*Note: N=92*

### Question 22

The researcher used data collected through Qualtrics and transferred it to SPSS software. Once in SPSS, the researcher split the data and performed a descriptive analysis. Question 22. When I take a test, I think about how poorly I am doing. This question allowed participants to answer via a Likert scale 1 to 5. If the participants rated the question a one they felt the question / statement did not represent them at all and the choices gradually increased to five where the question / statement totally represented them. These points scored normally on this question (1=1, 2=2, 3=3, 4=4, and 5=5). Dual Enrollment participants scored an average of 2.18. The standard deviation was 1.196. Traditional Participants scored an average of 2.41. The standard deviation was 1.499. One of the traditional participants did not answer this question reducing those who answered to 51.

Table 26

Participants Score on Question 22 on Motivated Strategies for Learning Questionnaire (MSLQ)

Question 22	Dual Enrollment (n=40)		Traditional (n=51)	
	$\bar{X}$	SD	$\bar{X}$	SD
	2.18	1.196	2.419	1.49

Note:  
N=91

Question 23

The researcher used data collected through Qualtrics and transferred it to SPSS software. Once in SPSS, the researcher split the data and performed a descriptive analysis. Question 23. When I study for a test, I try to put together the information from class and from the book. This question allowed participants to answer via a Likert scale 1 to 5. If the participants rated the question a one they felt the question / statement did not represent them at all and the choices gradually increased to five where the question / statement totally represented them. These points scored normally on this question (1=1, 2=2, 3=3, 4=4, and 5=5). Dual Enrollment participants scored an average of 3.80. The standard deviation was 1.067. Traditional Participants scored an average of 4.18. The standard deviation was 1.034. One of the traditional participants did not answer this question reducing those who answered to 51.

Table 27

*Participants Score on Question 23 on Motivated Strategies for Learning Questionnaire (MSLQ)*

Question 23	Dual Enrollment (n=40)		Traditional (n=51)	
	$\bar{X}$	SD	$\bar{X}$	SD
	3.8	1.067	4.18	1.034

*Note: N=91*

### Question 24

The researcher used data collected through Qualtrics and transferred it to SPSS software. Once in SPSS, the researcher split the data and performed a descriptive analysis. Question 24. When I do homework, I try to remember what the teacher said in class so I can answer the questions correctly. This question allowed participants to answer via a Likert scale 1 to 5. If the participants rated the question a one they felt the question / statement did not represent them at all and the choices gradually increased to five where the question / statement totally represented them. These points scored normally on this question (1=1, 2=2, 3=3, 4=4, and 5=5). Dual Enrollment participants scored an average of 4.33. The standard deviation was 0.888. Traditional Participants scored an average of 4.20. The standard deviation was 0.145. One of the traditional participants did not answer this question reducing those who answered to 51.

Table 28

*Participants Score on Question 24 on Motivated Strategies for Learning Questionnaire (MSLQ)*

Question 24	Dual Enrollment (n=40)		Traditional (n=51)	
	$\bar{X}$	SD	$\bar{X}$	SD
	4.33	0.888	4.2	0.145

*Note: N=91*

### Question 25

The researcher used data collected through Qualtrics and transferred it to SPSS software. Once in SPSS, the researcher split the data and performed a descriptive analysis. Question 25. I ask myself questions to make sure I know the material I have been studying. This question allowed participants to answer via a Likert scale 1 to 5. If the participants rated the question a one they felt the question / statement did not represent them at all and the choices gradually increased to five where the question / statement totally represented them. These points scored normally on this question (1=1, 2=2, 3=3, 4=4, and 5=5). Dual Enrollment participants scored an average of 3.88. The standard deviation was 1.202. Traditional Participants scored an average of 4.16. The standard deviation was 1.120. One of the traditional participants did not answer this question reducing those who answered to 51.

Table  
29

*Participants Score on Question 25 on Motivated Strategies for Learning Questionnaire (MSLQ)*

Question 25	Dual Enrollment (n=40)		Traditional (n=51)	
	$\bar{X}$	SD	$\bar{X}$	SD
	3.88	1.202	4.16	1.120

*Note: N=91*

### Question 26

The researcher used data collected through Qualtrics and transferred it to SPSS software. Once in SPSS, the researcher split the data and performed a descriptive analysis. Question 26. It is hard for me to decide what the main ideas are in what I read. This question allowed participants to answer via a Likert scale 1 to 5. If the participants rated the question a one they felt the question / statement did not represent them at all and the choices gradually increased to five where the question / statement totally represented them. These points scored reverse on this

question (1=5, 2=4, 3=3, 4=2, and 5=1). Dual Enrollment participants scored an average of 2.82. The standard deviation was 1.295. One of the dual enrollment participants did not answer this question reducing those who answered to 39. Traditional Participants scored an average of 2.61. The standard deviation was 1.471. One of the traditional participants did not answer this question reducing those who answered to 51.

Table 30  
*Participants Score on Question 26 on Motivated Strategies for Learning Questionnaire (MSLQ)*

Question 26	Dual Enrollment (n=39)		Traditional (n=51)	
	$\bar{X}$	SD	$\bar{X}$	SD
	2.82	1.295	2.61	1.471

*Note: N=90*

#### Question 27

The researcher used data collected through Qualtrics and transferred it to SPSS software. Once in SPSS, the researcher split the data and performed a descriptive analysis. Question 27. When work is hard, I either give up or study only the easy parts. This question allowed participants to answer via a Likert scale 1 to 5. If the participants rated the question a one they felt the question / statement did not represent them at all and the choices gradually increased to five where the question / statement totally represented them. These points scored reverse on this question (1=5, 2=4, 3=3, 4=2, and 5=1). Dual Enrollment participants scored an average of 1.95. The standard deviation was 1.123. One of the dual enrollment participants did not answer this question reducing those who answered to 39. Traditional Participants scored an average of 2.27. The standard deviation was 1.343. One of the traditional participants did not answer this question reducing those who answered to 51.



Table 31

*Participants Score on Question 27 on Motivated Strategies for Learning Questionnaire (MSLQ)*

Question 27	Dual Enrollment (n=39)		Traditional (n=51)	
	$\bar{X}$	SD	$\bar{X}$	SD
	1.95	1.123	2.27	1.343

*Note: N=91*

Question 28

The researcher used data collected through Qualtrics and transferred it to SPSS software. Once in SPSS, the researcher split the data and performed a descriptive analysis. Question 28. When I study, I put important ideas into my own words. This question allowed participants to answer via a Likert scale 1 to 5. If the participants rated the question a one they felt the question / statement did not represent them at all and the choices gradually increased to five where the question / statement totally represented them. These points scored reverse on this question (1=5, 2=4, 3=3, 4=2, and 5=1). Dual Enrollment participants scored an average of 3.92. The standard deviation was 0.984. One of the dual enrollment participants did not answer this question reducing those who answered to 39. Traditional Participants scored an average of 4.23. The standard deviation was 0.877.

Table 32

*Participants Score on Question 28 on Motivated Strategies for Learning Questionnaire (MSLQ)*

Question 28	Dual Enrollment (n=39)		Traditional (n=52)	
	$\bar{x}$	SD	$\bar{x}$	SD
	3.92	0.984	4.23	0.877

*Note: N=91*

Question 29

The researcher used data collected through Qualtrics and transferred it to SPSS software. Once in SPSS, the researcher split the data and performed a descriptive analysis. Question 29. I always try to understand what the teacher is saying even if it does not make sense. This question allowed participants to answer via a Likert scale 1 to 5. If the participants rated the question a one they felt the question / statement did not represent them at all and the choices gradually increased to five where the question / statement totally represented them. These points scored normally on this question (1=1, 2=2, 3=3, 4=4, and 5=5). Dual Enrollment participants scored an average of 4.23. The standard deviation was 0.931. One of the dual enrollment participants did not answer this question reducing those who answered to 39. Traditional Participants scored an average of 4.33. The standard deviation was 0.841. One of the traditional participants did not answer this question reducing those who answered to 51.

Table  
33

*Participants Score on Question 29 on Motivated Strategies for Learning Questionnaire (MSLQ)*

Question 29	Dual Enrollment (n=39)		Traditional (n=51)	
	$\bar{X}$	SD	$\bar{X}$	SD
	4.23	0.931	4.33	0.841

*Note: N=90*

### Question 30

The researcher used data collected through Qualtrics and transferred it to SPSS software. Once in SPSS, the researcher split the data and performed a descriptive analysis. Question 30. When I study for a test, I try to remember as many facts as I can. This question allowed participants to answer via a Likert scale 1 to 5. If the participants rated the question a one they felt the question / statement did not represent them at all and the choices gradually increased to five where the question / statement totally represented them. These points scored normally on this question (1=1, 2=2, 3=3, 4=4, and 5=5). Dual Enrollment participants scored an average of 4.28. The standard deviation was 0.916. One of the dual enrollment participants did not answer this question reducing those who answered to 39. Traditional Participants scored an average of 4.43. The standard deviation was 0.855. One of the traditional participants did not answer this question reducing those who answered to 51.

Table 34

*Participants Score on Question 30 on Motivated Strategies for Learning Questionnaire (MSLQ)*

Question 30	Dual Enrollment (n=39)		Traditional (n=51)	
	$\bar{X}$	SD	$\bar{X}$	SD
	4.28	0.916	4.43	0.855

*Note: N=90*

Question 31

The researcher used data collected through Qualtrics and transferred it to SPSS software. Once in SPSS, the researcher split the data and performed a descriptive analysis. Question 31. When studying, I copy my notes over to help me remember material. This question allowed participants to answer via a Likert scale 1 to 5. If the participants rated the question a one they felt the question / statement did not represent them at all and the choices gradually increased to five where the question / statement totally represented them. These points scored normally on this question (1=1, 2=2, 3=3, 4=4, and 5=5). Dual Enrollment participants scored an average of 3.18. The standard deviation was 1.448. Traditional Participants scored an average of 3.69. The standard deviation was 1.351.

Table 35

*Participants Score on Question 31 on Motivated Strategies for Learning Questionnaire (MSLQ)*

Question 31	Dual Enrollment (n=40)		Traditional (n=52)	
	$\bar{X}$	SD	$\bar{X}$	SD
	3.18	1.448	3.69	1.351

*Note: N=92*

### Question 32

The researcher used data collected through Qualtrics and transferred it to SPSS software. Once in SPSS, the researcher split the data and performed a descriptive analysis. Question 32. I work on practice exercises and answer end of chapter questions even when I do not have to. This question allowed participants to answer via a Likert scale 1 to 5. If the participants rated the question a one they felt the question / statement did not represent them at all and the choices gradually increased to five where the question / statement totally represented them. These points scored normally on this question (1=1, 2=2, 3=3, 4=4, and 5=5). Dual Enrollment participants scored an average of 2.98. The standard deviation was 1.33. Traditional Participants scored an average of 3.31. The standard deviation was 1.556. One of the traditional participants did not answer this question reducing those who answered to 51.

Table 36

*Participants Score on Question 32 on Motivated Strategies for Learning Questionnaire (MSLQ)*

Question 32	Dual Enrollment (n=40)		Traditional (n=51)	
	$\bar{X}$	SD	$\bar{X}$	SD
	2.98	1.33	3.31	1.556

*Note: N=91*

### Question 33

The researcher used data collected through Qualtrics and transferred it to SPSS software. Once in SPSS, the researcher split the data and performed a descriptive analysis. Question 33. Even when study materials are dull and uninteresting, I keep working until I finish. This question allowed participants to answer via a Likert scale 1 to 5. If the participants rated the question a one they felt the question / statement did not represent them at all and the choices gradually increased to five where the question / statement totally represented them. These points scored normally on this question (1=1, 2=2, 3=3, 4=4, and 5=5). Dual Enrollment participants scored an average of 4.03. The standard deviation was 1.074. Traditional Participants scored an average of 3.94. The standard deviation was 1.085. One of the traditional participants did not answer this question reducing those who answered to 51.

Table 37

*Participants Score on Question 33 on Motivated Strategies for Learning Questionnaire (MSLQ)*

Question 33	Dual Enrollment (n=40)		Traditional (n=51)	
	$\bar{X}$	SD	$\bar{X}$	SD
	4.03	1.074	3.94	1.085

*Note: N=91*

### Question 34

The researcher used data collected through Qualtrics and transferred it to SPSS software. Once in SPSS, the researcher split the data and performed a descriptive analysis. Question 34. When I study for a test, I practice saying the important facts over and over to myself. This

question allowed participants to answer via a Likert scale 1 to 5. If the participants rated the question a one they felt the question / statement did not represent them at all and the choices gradually increased to five where the question / statement totally represented them. These points scored normally on this question (1=1, 2=2, 3=3, 4=4, and 5=5). Dual Enrollment participants scored an average of 3.95. The standard deviation was 1.037. Traditional Participants scored an average of 4.1. The standard deviation was 1.171. One of the traditional participants did not answer this question reducing those who answered to 51.

Table

38

*Participants Score on Question 34 on Motivated Strategies for Learning Questionnaire (MSLQ)*

Question 34	Dual Enrollment (n=40)		Traditional (n=51)	
	$\bar{X}$	SD	$\bar{X}$	SD
	3.95	1.037	4.1	1.171

*Note: N=91*

Question 35

The researcher used data collected through Qualtrics and transferred it to SPSS software. Once in SPSS, the researcher split the data and performed a descriptive analysis. Question 35. Before I begin studying, I think about the things I will need to do to learn. This question allowed participants to answer via a Likert scale 1 to 5. If the participants rated the question a one they felt the question / statement did not represent them at all and the choices gradually increased to five where the question / statement totally represented them. These points scored normally on this question (1=1, 2=2, 3=3, 4=4, and 5=5). Dual Enrollment participants scored an average of 4.05. The standard deviation was 1.085. Traditional Participants scored an average of 4.12. The standard deviation was 1.16. One of the traditional participants did not answer this question reducing those who answered to 51.

Table 39

*Participants Score on Question 35 on Motivated Strategies for Learning Questionnaire (MSLQ)*

Question 35	Dual Enrollment (n=40)		Traditional (n=51)	
	$\bar{X}$	SD	$\bar{X}$	SD
	4.05	1.085	4.12	1.160

*Note: N=91*

### Question 36

The researcher used data collected through Qualtrics and transferred it to SPSS software. Once in SPSS, the researcher split the data and performed a descriptive analysis. Question 36. I use what I have learned from old homework assignments and the textbook to do new assignments. This question allowed participants to answer via a Likert scale 1 to 5. If the participants rated the question a one they felt the question / statement did not represent them at all and the choices gradually increased to five where the question / statement totally represented them. These points scored normally on this question (1=1, 2=2, 3=3, 4=4, and 5=5). Dual Enrollment participants scored an average of 3.9. The standard deviation was 1.008. Traditional Participants scored an average of 4.06. The standard deviation was 1.227.

Table 40

*Participants Score on Question 36 on Motivated Strategies for Learning Questionnaire (MSLQ)*

Question 36	Dual Enrollment (n=40)		Traditional (n=52)	
	$\bar{X}$	SD	$\bar{X}$	SD
	3.9	1.008	4.06	1.227

*Note: N=92*



### Question 37

The researcher used data collected through Qualtrics and transferred it to SPSS software. Once in SPSS, the researcher split the data and performed a descriptive analysis. Question 37. I often find that I have been reading for class but do not know what it is all about. This question allowed participants to answer via a Likert scale 1 to 5. If the participants rated the question a one they felt the question / statement did not represent them at all and the choices gradually increased to five where the question / statement totally represented them. These points scored reverse on this question (1=5, 2=4, 3=3, 4=2, and 5=1). Dual Enrollment participants scored an average of 2.93. The standard deviation was 1.347. Traditional Participants scored an average of 2.94. The standard deviation was 1.42.

Table

41

*Participants Score on Question 37 on Motivated Strategies for Learning Questionnaire (MSLQ)*

Question	Dual Enrollment (n=40)		Traditional (n=52)	
	$\bar{X}$	SD	$\bar{X}$	SD
37	2.93	1.347	2.94	1.420

*Note:*

*N=92*

### Question 38

The researcher used data collected through Qualtrics and transferred it to SPSS software. Once in SPSS, the researcher split the data and performed a descriptive analysis. Question 38. I find that when the teacher is talking I think of other things and don't really listen to what is being said. This question allowed participants to answer via a Likert scale 1 to 5. If the participants rated the question a one they felt the question / statement did not represent them at all and the choices gradually increased to five where the question / statement totally represented them.

These points scored reverse on this question (1=5, 2=4, 3=3, 4=2, and 5=1). Dual Enrollment participants scored an average of 2.63. The standard deviation was 1.372. Traditional Participants scored an average of 2.69. The standard deviation was 1.407. One of the traditional participants did not answer this question reducing those who answered to 51.

Table

42

*Participants Score on Question 38 on Motivated Strategies for Learning Questionnaire (MSLQ)*

Question 38	Dual Enrollment (n=40)		Traditional (n=52)	
	$\bar{X}$	SD	$\bar{X}$	SD
	2.63	1.372	2.69	1.407

*Note: N=92*

### Question 39

The researcher used data collected through Qualtrics and transferred it to SPSS software. Once in SPSS, the researcher split the data and performed a descriptive analysis. Question 39. When I am studying a topic, I try to make everything fit together. This question allowed participants to answer via a Likert scale 1 to 5. If the participants rated the question a one they felt the question / statement did not represent them at all and the choices gradually increased to five where the question / statement totally represented them. These points scored normally on this question (1=1, 2=2, 3=3, 4=4, and 5=5). Dual Enrollment participants scored an average of 4.3. The standard deviation was 0.758. Traditional Participants scored an average of 4.31. The standard deviation was 0.812. One of the traditional participants did not answer this question reducing those who answered to 51.

Table 43

*Participants Score on Question 39 on Motivated Strategies for Learning Questionnaire (MSLQ)*

Question 39	Dual Enrollment (n=40)		Traditional (n=51)	
	$\bar{X}$	SD	$\bar{X}$	SD
	4.3	0.758	4.31	0.812

*Note: N=91*

Question 40

The researcher used data collected through Qualtrics and transferred it to SPSS software. Once in SPSS, the researcher split the data and performed a descriptive analysis. Question 40. When I'm reading I stop once in a while and go over what I have read. This question allowed participants to answer via a Likert scale 1 to 5. If the participants rated the question a one they felt the question / statement did not represent them at all and the choices gradually increased to five where the question / statement totally represented them. These points scored normally on this question (1=1, 2=2, 3=3, 4=4, and 5=5). Dual Enrollment participants scored an average of 3.8. The standard deviation was 1.018. Traditional Participants scored an average of 4.04. The standard deviation was 0.999. One of the traditional participants did not answer this question reducing those who answered to 51.

Table  
44

*Participants Score on Question 40 on Motivated Strategies for Learning Questionnaire (MSLQ)*

Question 40	Dual Enrollment (n=40)		Traditional (n=51)	
	$\bar{X}$	SD	$\bar{X}$	SD
	3.8	1.018	4.04	0.999

*Note: N=91*

#### Question 41

The researcher used data collected through Qualtrics and transferred it to SPSS software. Once in SPSS, the researcher split the data and performed a descriptive analysis. Question 41. When I read materials for this class, I say the words over and over to myself to help me remember. This question allowed participants to answer via a Likert scale 1 to 5. If the participants rated the question a one they felt the question / statement did not represent them at all and the choices gradually increased to five where the question / statement totally represented them. These points scored normally on this question (1=1, 2=2, 3=3, 4=4, and 5=5). Dual Enrollment participants scored an average of 3.65. The standard deviation was 1.122.

Traditional Participants scored an average of 3.9. The standard deviation was 1.253. One of the traditional participants did not answer this question reducing those who answered to 51.

Table  
45

*Participants Score on Question 41 on Motivated Strategies for Learning Questionnaire (MSLQ)*

	Dual Enrollment (n=40)		Traditional (n=51)	
	$\bar{X}$	SD	$\bar{X}$	SD
Question 41	3.65	1.122	3.9	1.253

*Note: N=91*

### **Question 42**

The researcher used data collected through Qualtrics and transferred it to SPSS software. Once in SPSS, the researcher split the data and performed a descriptive analysis. Question 42. I outline the chapters in my book to help me study. This question allowed participants to answer via a Likert scale 1 to 5. If the participants rated the question a one they felt the question / statement did not represent them at all and the choices gradually increased to five where the question / statement totally represented them. These points scored normally on this question (1=1, 2=2, 3=3, 4=4, and 5=5). Dual Enrollment participants scored an average of 2.83. The standard deviation was 1.534. Traditional Participants scored an average of 3.47. The standard deviation was 1.474. One of the traditional participants did not answer this question reducing those who answered to 51.

Table 46

*Participants Score on Question 42 on Motivated Strategies for Learning Questionnaire (MSLQ)*

Question 42	Dual Enrollment		Traditional	
	(n=40)		(n=51)	
	$\bar{X}$	SD	$\bar{X}$	SD
	2.83	1.534	3.47	1.474

*Note: N=91*

**Question 43**

The researcher used data collected through Qualtrics and transferred it to SPSS software. Once in SPSS, the researcher split the data and performed a descriptive analysis. Question 43. I work hard to get a good grade even when I don't like a class. This question allowed participants to answer via a Likert scale 1 to 5. If the participants rated the question a one they felt the question / statement did not represent them at all and the choices gradually increased to five where the question / statement totally represented them. These points scored normally on this question (1=1, 2=2, 3=3, 4=4, and 5=5). Dual Enrollment participants scored an average of 4.4. The standard deviation was 0.928. Traditional Participants scored an average of 4.4. The standard deviation was 0.846.

Table

47

*Participants Score on Question 43 on Motivated Strategies for Learning Questionnaire (MSLQ)*

Question 43	Dual Enrollment (n=40)		Traditional (n=52)	
	$\bar{X}$	SD	$\bar{X}$	SD
	4.4	0.928	4.4	0.846

*Note: N=92*

**Question 44**

The researcher used data collected through Qualtrics and transferred it to SPSS software. Once in SPSS, the researcher split the data and performed a descriptive analysis. Question 44. When reading I try to connect the things I am reading about with what I already know. This question allowed participants to answer via a Likert scale 1 to 5. If the participants rated the question a one they felt the question / statement did not represent them at all and the choices gradually increased to five where the question / statement totally represented them. These points scored normally on this question (1=1, 2=2, 3=3, 4=4, and 5=5). Dual Enrollment participants scored an average of 4.33. The standard deviation was 0.859. Traditional Participants scored an average of 4.51. The standard deviation was 0.809. One of the traditional participants did not answer this question reducing those who answered to 51.

Table 48

*Participants Score on Question 44 on Motivated Strategies for Learning Questionnaire (MSLQ)*

Question 44	Dual Enrollment (n=40)		Traditional (n=51)	
	$\bar{X}$	SD	$\bar{X}$	SD
	4.33	0.859	4.51	0.809

*Note: N=91*



t-Test

Gender

The t-Test examined for Equality of Means between groups Dual Enrollment and Traditional using the dependent variable gender. The Levene's Test for Equality of Variances produced an F score of 44.72 and significance of 0.000. These scores on the Levene's Test directly lead to not assuming equal variances. The t-test showed that the Dual Enrollment based on gender was significant,  $t(55.13) = 2.765, p = .008$ , for the participants. The Equality of Means between the groups Dual Enrollment and Traditional using the dependent variable gender did not happen by chance with  $p < .05$ . The table below shows the Levene's Test and t-Test for the effects of Dual Enrollment and Traditional groups on gender.

Table 49

*Gender*

<i>Levene's Test for Equality of Variances</i>						
	F	Sig				
Assumed	44.721	0.000				
Not Assumed						

  

<i>t-test for Equality of Means between groups Dual Enrollment and Traditional</i>						
t	df	Sig. (2-tailed)	Mean Difference	Std. Error Difference	95% Confidence Interval of the Difference	
					Lower	Upper
2.983	90	0.004	0.217	0.073	0.073	0.362
2.765	55.127	0.008	0.217	0.079	0.06	0.375

Overall Score

The t-Test examined for Equality of Means between the groups Dual Enrollment and Traditional using the dependent variable Overall Score on Motivated Strategies for Learning Questionnaire. The Levene's Test for Equality of Variances produced an F score of 1.099 and Significance of 0.297. These scores on the Levene's Test directly lead to assuming equal variances. The t-test showed that the Dual Enrollment on the overall score variable was not significant,  $t(90) = 2.765, p=0.988$ , for the participants. The Equality of Means between the groups Dual Enrollment and Traditional using the dependent variable Overall Score did happen by chance with  $p>.05$ . The table below shows the Levene's Test and t-Test for the effects of Dual Enrollment and Traditional groups on Overall Score.

Table 50  
*Overall Score*

<i>Levene's Test for Equality of Variances</i>						
		F	Sig.			
Assumed		1.099	0.297			
Not Assumed						

  

<i>t-test for Equality of Means between groups Dual Enrollment and Traditional</i>						
					95% Confidence Interval of the Difference	
t	df	Sig. (2-tailed)	Mean Difference	Std. Error Difference	Lower	Upper
0.016	90	0.988	0.092	5.916	-11.66	11.845
0.016	89.694	0.987	0.092	5.676	-11.18	11.368

Question 1

The t-Test examined for Equality of Means between the groups Dual Enrollment and Traditional using the dependent variable Question 1 on Motivated Strategies for Learning Questionnaire. The Levene's Test for Equality of Variances produced an F score of 12.958 and Significance of 0.001. These scores on the Levene's Test directly lead to not assuming equal variances. The t-test showed that the Dual Enrollment on the Question 1 was significant,  $t(78.99) = 2.162, p=0.034$ , for the participants. The Equality of Means between the groups Dual Enrollment and Traditional using the dependent variable Question 1 did not happen by chance with  $p<.05$ . The table below shows the Levene's Test and t-Test for the effects of Dual Enrollment and Traditional groups on Question 1.

Table  
51

*Question 1*

*Levene's Test for Equality of Variances*

	F	Sig.
Assumed	12.958	0.001
Not Assumed		

*t-test for Equality of Means between groups Dual Enrollment and Traditional*

t	df	Sig. (2-tailed)	Mean Difference	Std. Error Difference	95% Confidence Interval of the Difference	
					Lower	Upper
1.999	90	0.049	0.427	0.214	0.003	0.851
2.162	78.992	0.034	0.427	0.197	0.034	0.82

Question 2

The t-Test examined for Equality of Means between the groups Dual Enrollment and Traditional using the dependent variable Question 2 on Motivated Strategies for Learning Questionnaire. The Levene's Test for Equality of Variances produced an F score of 2.48 and Significance of 0.119. These scores on the Levene's Test directly lead to assuming equal variances. The t-test showed that the Dual Enrollment on the Question 2 was not significant,  $t(89) = 0.582, p=0.562$ , for the participants. The Equality of Means between the groups Dual Enrollment and Traditional using the dependent variable Question 2 did happen by chance with  $p>.05$ . The table below shows the Levene's Test and t-Test for the effects of Dual Enrollment and Traditional groups on Question 2.

Table  
52

*Question 2*

<i>Levene's Test for Equality of Variances</i>						
		F	Sig			
Assumed		2.48	0.119			
Not Assumed						
<i>t-test for Equality of Means between groups Dual Enrollment and Traditional</i>						
t	df	Sig. (2-tailed)	Mean Difference	Std. Error Difference	95% Confidence Interval of the Difference	
0.582	89	0.562	0.102	0.176	-0.248	0.452
0.61	86.976	0.544	0.102	0.168	-0.232	0.437

### Question 3

The t-Test examined for Equality of Means between the groups Dual Enrollment and Traditional using the dependent variable Question 3 on Motivated Strategies for Learning Questionnaire. The Levene's Test for Equality of Variances produced an F score of 2.98 and Significance of 0.088. These scores on the Levene's Test directly lead to assuming equal variances. The t-test showed that the Dual Enrollment on the Question 3 was not significant,  $t(89) = -0.61, p = 0.542$ , for the participants. The Equality of Means between the groups Dual Enrollment and Traditional using the dependent variable Question 3 did happen by chance with  $p > .05$ . The table below shows the Levene's Test and t-Test for the effects of Dual Enrollment and Traditional groups on Question 3.

Table  
53

#### *Question 3*

##### *Levene's Test for Equality of Variances*

	F	Sig.
Assumed	2.98	0.088
Not Assumed		

##### *t-test for Equality of Means between groups Dual Enrollment and Traditional*

t	df	Sig. (2-tailed)	Mean Difference	Std. Error Difference	95% Confidence Interval of the Difference	
					Lower	Upper
-0.612	89	0.542	-0.171	0.279	-0.725	0.383
-0.628	88.9	0.532	-0.171	0.272	-0.711	0.369

Question 4

The t-Test examined for Equality of Means between the groups Dual Enrollment and Traditional using the dependent variable Question 4 on Motivated Strategies for Learning Questionnaire. The Levene's Test for Equality of Variances produced an F score of 1.618 and Significance of 0.207. These scores on the Levene's Test directly lead to assuming equal variances. The t-test showed that the Dual Enrollment on the Question 4 was not significant,  $t(89) = 0.364, p=0.056$ , for the participants. The Equality of Means between the groups Dual Enrollment and Traditional using the dependent variable Question 4 did happen by chance with  $p>.05$ . The table below shows the Levene's Test and t-Test for the effects of Dual Enrollment and Traditional groups on Question 4.

Table  
54

*Question 4*

<i>Levene's Test for Equality of Variances</i>						
		F	Sig.			
Assumed		1.618	0.207			
Not Assumed						
<i>t-test for Equality of Means between groups Dual Enrollment and Traditional</i>						
t	df	Sig. (2-tailed)	Mean Difference	Std. Error Difference	95% Confidence Interval of the Difference	
0.364	89	0.717	0.056	0.155	-0.251	0.364
0.379	88.092	0.705	0.056	0.149	-0.239	0.352

Question 5

The t-Test examined for Equality of Means between the groups Dual Enrollment and Traditional using the dependent variable Question 5 on Motivated Strategies for Learning Questionnaire. The Levene's Test for Equality of Variances produced an F score of 3.055 and Significance of 0.084. These scores on the Levene's Test directly lead to assuming equal variances. The t-test showed that the Dual Enrollment on the Question 5 was not significant,  $t(89) = 0.716, p=0.476$ , for the participants. The Equality of Means between the groups Dual Enrollment and Traditional using the dependent variable Question 5 did happen by chance with  $p>.05$ . The table below shows the Levene's Test and t-Test for the effects of Dual Enrollment and Traditional groups on Question 5.

Table  
55

<i>Question 5</i>						
<i>Levene's Test for Equality of Variances</i>						
		F	Sig			
Assumed		3.055	0.084			
Not Assumed						
<i>t-test for Equality of Means between groups Dual Enrollment and Traditional</i>						
					95% Confidence Interval of the Difference	
t	df	Sig. (2- tailed)	Mean Difference	Std. Error Difference	Lower	Upper
0.716	89	0.476	0.144	0.201	-0.255	0.542
0.753	86.165	0.454	0.144	0.191	-0.236	0.523

Question 6

The t-Test examined for Equality of Means between the groups Dual Enrollment and Traditional using the dependent variable Question 6 on Motivated Strategies for Learning Questionnaire. The Levene's Test for Equality of Variances produced an F score of 0.828 and Significance of 0.365. These scores on the Levene's Test directly lead to assuming equal variances. The t-test showed that the Dual Enrollment on the Question 6 was not significant,  $t(90) = 0.796, p=0.428$ , for the participants. The Equality of Means between the groups Dual Enrollment and Traditional using the dependent variable Question 6 did happen by chance with  $p>.05$ . The table below shows the Levene's Test and t-Test for the effects of Dual Enrollment and Traditional groups on Question 6.

Table  
56

<i>Question</i>		<i>6</i>				
<i>Levene's Test for Equality of Variances</i>						
		<i>F</i>	<i>Sig</i>			
Assumed		0.828	0.365			
<i>Not Assumed</i>						
<i>t-test for Equality of Means between groups Dual Enrollment and Traditional</i>						
				<i>95% Confidence Interval of the Difference</i>		
<i>t</i>	<i>df</i>	<i>Sig. (2-tailed)</i>	<i>Mean Difference</i>	<i>Std. Error Difference</i>	<i>Lower</i>	<i>Upper</i>
0.796	90	0.428	0.133	0.167	-0.199	0.464
0.798	85.133	0.427	0.133	0.166	-0.198	0.463



Question 7

The t-Test examined for Equality of Means between the groups Dual Enrollment and Traditional using the dependent variable Question 7 on Motivated Strategies for Learning Questionnaire. The Levene's Test for Equality of Variances produced an F score of 0.011 and Significance of 0.915. These scores on the Levene's Test directly lead to assuming equal variances. The t-test showed that the Dual Enrollment on the Question 7 was significant,  $t(89) = 0.814, p=0.044$ , for the participants. The Equality of Means between the groups Dual Enrollment and Traditional using the dependent variable Question 7 did happen by chance with  $p>.05$ . The table below shows the Levene's Test and t-Test for the effects of Dual Enrollment and Traditional groups on Question 7.

Table  
57

*Question 7*

*Levene's Test for Equality of Variances*

	F	Sig
Assumed	0.011	0.915
Not Assumed		

*t-test for Equality of Means between groups Dual Enrollment and Traditional*

t	df	Sig. (2-tailed)	Mean Difference	Std. Error Difference	95% Confidence Interval of the Difference	
					Lower	Upper
0.235	89	0.814	0.044	0.185	-0.325	0.412
0.237	86.038	0.813	0.044	0.184	-0.322	0.409

Question 8

The t-Test examined for Equality of Means between the groups Dual Enrollment and Traditional using the dependent variable Question 8 on Motivated Strategies for Learning Questionnaire. The Levene's Test for Equality of Variances produced an F score of 0.632 and Significance of 0.084. These scores on the Levene's Test directly lead to assuming equal variances. The t-test showed that the Dual Enrollment on the Question 8 was not significant,  $t(89) = 0.298, p=0.766$ , for the participants. The Equality of Means between the groups Dual Enrollment and Traditional using the dependent variable Question 8 did happen by chance with  $p>.05$ . The table below shows the Levene's Test and t-Test for the effects of Dual Enrollment and Traditional groups on Question 8.

Table  
58

<i>Question 8</i>						
<i>Levene's Test for Equality of Variances</i>						
		F	Sig			
Assumed		0.632	0.429			
Not Assumed						
<i>t-test for Equality of Means between groups Dual Enrollment and Traditional</i>						
					95% Confidence Interval of the Difference	
t	df	Sig. (2-tailed)	Mean Difference	Std. Error Difference	Lower	Upper
0.298	89	0.766	0.052	0.176	-0.297	0.402
0.302	87.363	0.763	0.052	0.174	-0.292	0.397

Question 9

The t-Test examined for Equality of Means between the groups Dual Enrollment and Traditional using the dependent variable Question 9 on Motivated Strategies for Learning Questionnaire. The Levene's Test for Equality of Variances produced an F score of 0.281 and Significance of 0.597. These scores on the Levene's Test directly lead to assuming equal variances. The t-test showed that the Dual Enrollment on the Question 9 was not significant,  $t(89) = -1.024, p=0.309$ , for the participants. . The Equality of Means between the groups Dual Enrollment and Traditional using the dependent variable Question 9 did happen by chance with  $p>.05$ . The table below shows the Levene's Test and t-Test for the effects of Dual Enrollment and Traditional groups on Question 9.

Table  
59

*Question 9*

*Levene's Test for Equality of Variances*

	F	Sig
Assumed	0.281	0.597
Not Assumed		

*t-test for Equality of Means between groups Dual Enrollment and Traditional*

t	df	Sig. (2-tailed)	Mean Differ- ence	Std. Error Difference	95% Confidence Interval of the Difference	
					Lower	Upper
-1.024	89	0.309	-0.169	0.165	-0.496	0.159
-1.015	80.94	0.313	-0.169	0.166	-0.499	0.162

Question 10

The t-Test examined for Equality of Means between the groups Dual Enrollment and Traditional using the dependent variable Question 10 on Motivated Strategies for Learning Questionnaire. The Levene's Test for Equality of Variances produced an F score of 0.002 and Significance of 0.968. These scores on the Levene's Test directly lead to assuming equal variances. The t-test showed that the Dual Enrollment on the Question 10 was not significant,  $t(89) = -.083, p=0.411$ , for the participants. The Equality of Means between the groups Dual Enrollment and Traditional using the dependent variable Question 10 did happen by chance with  $p>.05$ . The table below shows the Levene's Test and t-Test for the effects of Dual Enrollment and Traditional groups on Question 10.

Table  
60

*Questio. 10*

<i>Levene's Test for Equality of Variances</i>							
		F	Sig				
Assumed		0.002	0.968				
Not Assumed							
<i>t-test for Equality of Means between groups Dual Enrollment and Traditional</i>							
t	df	Sig. (2-tailed)	Mean Difference	Std. Error Difference	95% Confidence Interval of the Difference		
					Lower	Upper	
-0.82	8	0.41	-0.20	0.24	-0.69	0.28	
-0.82	83	0.41	-0.20	0.24	-0.69	0.28	

Question 11

The t-Test examined for Equality of Means between the groups Dual Enrollment and Traditional using the dependent variable Question 11 on Motivated Strategies for Learning Questionnaire. The Levene's Test for Equality of Variances produced an F score of 0.143 and Significance of 0.707. These scores on the Levene's Test directly lead to assuming equal variances. The t-test showed that the Dual Enrollment on the Question 11 was not significant,  $t(89) = .193, p=0.848$ , for the participants. The Equality of Means between the groups Dual Enrollment and Traditional using the dependent variable Question 11 did happen by chance with  $p>.05$ . The table below shows the Levene's Test and t-Test for the effects of Dual Enrollment and Traditional groups on Question 11.

Table  
61

*Question 11*

*Levene's Test for Equality of Variances*

	F	Sig
Assumed	0.143	0.707
Not Assumed		

*t-test for Equality of Means between groups Dual Enrollment and Traditional*

t	df	Sig. (2-tailed)	Mean Difference	Std. Error Difference	95% Confidence Interval of the Difference	
					Lower	Upper
0.193	89	0.848	0.033	0.17	-0.306	0.371
0.194	85.915	0.847	0.033	0.169	-0.304	0.369

Question 12

The t-Test examined for Equality of Means between the groups Dual Enrollment and Traditional using the dependent variable Question 12 on Motivated Strategies for Learning Questionnaire. The Levene's Test for Equality of Variances produced an F score of 5.354 and Significance of 0.023. These scores on the Levene's Test directly lead to not assuming equal variances. The t-test showed that the Dual Enrollment on the Question 12 was significant,  $t(88.96) = -2.522, p=0.013$ , for the participants. The Equality of Means between the groups Dual Enrollment and Traditional using the dependent variable Question 12 did not happen by chance with  $p<.05$ . The table below shows the Levene's Test and t-Test for the effects of Dual Enrollment and Traditional groups on Question 12.

Table  
62

*Question 12*

<i>Levene's Test for Equality of Variances</i>						
		F	Sig			
Assumed		5.354	0.023			
Not Assumed						
<i>t-test for Equality of Means between groups Dual Enrollment and Traditional</i>						
t	df	Sig. (2-tailed)	Mean Difference	Std. Error Difference	95% Confidence Interval of the Difference	
-2.456	89	0.016	-0.725	0.295	-1.313	-0.138
-2.522	88.96	0.013	-0.725	0.288	-1.297	-0.154

Question 13

The t-Test examined for Equality of Means between the groups Dual Enrollment and Traditional using the dependent variable Question 13 on Motivated Strategies for Learning Questionnaire. The Levene's Test for Equality of Variances produced an F score of 0.07 and Significance of 0.791. These scores on the Levene's Test directly lead to assuming equal variances. The t-test showed that the Dual Enrollment on the Question 13 was not significant,  $t(89) = 0.347, p=0.729$ , for the participants. The Equality of Means between the groups Dual Enrollment and Traditional using the dependent variable Question 13 did happen by chance with  $p>.05$ . The table below shows the Levene's Test and t-Test for the effects of Dual Enrollment and Traditional groups on Question 13.

Table  
63

<i>Question 13</i>						
<i>Levene's Test for Equality of Variances</i>						
		F	Sig			
Assumed		0.07	0.791			
Not Assumed						
<i>t-test for Equality of Means between groups Dual Enrollment and Traditional</i>						
					95% Confidence Interval of the Difference	
t	df	Sig. (2-tailed)	Mean Difference	Std. Error Difference	Lower	Upper
0.347	89	0.729	0.058	0.166	-0.272	0.388
0.347	81.429	0.73	0.058	0.166	-0.273	0.389

Question 14

The t-Test examined for Equality of Means between the groups Dual Enrollment and Traditional using the dependent variable Question 14 on Motivated Strategies for Learning Questionnaire. The Levene's Test for Equality of Variances produced an F score of 1.48 and Significance of 0.227. These scores on the Levene's Test directly lead to assuming equal variances. The t-test showed that the Dual Enrollment on the Question 14 was not significant,  $t(89) = -1.47, p=0.145$ , for the participants. The Equality of Means between the groups Dual Enrollment and Traditional using the dependent variable Question 14 did happen by chance with  $p>.05$ . The table below shows the Levene's Test and t-Test for the effects of Dual Enrollment and Traditional groups on Question 14.

Table  
64

<i>Questio. 14</i>						
<i>Levene's Test for Equality of Variances</i>						
		F	Sig			
Assumed		1.482	0.227			
Not Assumed						
<i>t-test for Equality of Means between groups Dual Enrollment and Traditional</i>						
t	df	Sig. (2-tailed)	Mean Difference	Std. Error Difference	95% Confidence Interval of the Difference	
					Lower	Upper
-1.469	89	0.145	-0.304	0.207	-0.716	0.107
-1.423	71.275	0.159	-0.304	0.214	-0.731	0.122



Question 15

The t-Test examined for Equality of Means between the groups Dual Enrollment and Traditional using the dependent variable Question 15 on Motivated Strategies for Learning Questionnaire. The Levene's Test for Equality of Variances produced an F score of 1.653 and Significance of 0.202. These scores on the Levene's Test directly lead to assuming equal variances. The t-test showed that the Dual Enrollment on the Question 15 was not significant,  $t(89) = 0.823, p=0.413$ , for the participants. The Equality of Means between the groups Dual Enrollment and Traditional using the dependent variable Question 15 did happen by chance with  $p>.05$ . The table below shows the Levene's Test and t-Test for the effects of Dual Enrollment and Traditional groups on Question 15.

Table  
65

<i>Question 15</i>						
<i>Levene's Test for Equality of Variances</i>						
		F	Sig			
Assumed		1.653	0.202			
Not Assumed						
<i>t-test for Equality of Means between groups Dual Enrollment and Traditional</i>						
					95% Confidence Interval of the Difference	
t	df	Sig. (2- tailed)	Mean Difference	Std. Error Difference	Lower	Upper
0.823	89	0.413	0.14	0.17	-0.198	0.479
0.839	88.242	0.404	0.14	0.167	-0.192	0.472

Question 16

The t-Test examined for Equality of Means between the groups Dual Enrollment and Traditional using the dependent variable Question 16 on Motivated Strategies for Learning Questionnaire. The Levene's Test for Equality of Variances produced an F score of 3.299 and Significance of 0.073. These scores on the Levene's Test directly lead to assuming equal variances. The t-test showed that the Dual Enrollment on the Question 16 was not significant,  $t(87) = 0.103, p=0.918$ , for the participants. The Equality of Means between the groups Dual Enrollment and Traditional using the dependent variable Question 16 did happen by chance with  $p>.05$ . The table below shows the Levene's Test and t-Test for the effects of Dual Enrollment and Traditional groups on Question 16.

Table  
66

*Question 16*

<i>Levene's Test for Equality of Variances</i>						
	F	Sig.				
Assumed	3.299	0.073				
Not Assumed						
<i>t-test for Equality of Means between groups Dual Enrollment and Traditional</i>						
t	df	Sig. (2- tailed)	Mean Difference	Std. Error Difference	95% Confidence Interval of the Difference	
					Lower	Upper
0.103	87	0.918	0.023	0.225	-0.424	0.471
0.106	86.353	0.916	0.023	0.218	-0.411	0.457

Question 17

The t-Test examined for Equality of Means between the groups Dual Enrollment and Traditional using the dependent variable Question 17 on Motivated Strategies for Learning Questionnaire. The Levene's Test for Equality of Variances produced an F score of 1.213 and Significance of 0.274. These scores on the Levene's Test directly lead to assuming equal variances. The t-test showed that the Dual Enrollment on the Question 17 was not significant,  $t(87) = 0.613, p=0.541$ , for the participants. The Equality of Means between the groups Dual Enrollment and Traditional using the dependent variable Question 17 did happen by chance with  $p>.05$ . The table below shows the Levene's Test and t-Test for the effects of Dual Enrollment and Traditional groups on Question 17.

Table  
67

*Question 17*

*Levene's Test for Equality of Variances*

	F	Sig.
Assumed	1.213	0.274
Not Assumed		

*t-test for Equality of Means between groups Dual Enrollment and Traditional*

t	df	Sig. (2- tailed)	Mean Difference	Std. Error Difference	95% Confidence Interval of the Difference	
					Lower	Upper
0.613	87	0.541	0.146	0.237	-0.326	0.617
0.631	86.177	0.529	0.146	0.23	-0.313	0.604

Question 18

The t-Test examined for Equality of Means between the groups Dual Enrollment and Traditional using the dependent variable Question 18 on Motivated Strategies for Learning Questionnaire. The Levene's Test for Equality of Variances produced an F score of 2.645 and Significance of 0.108. These scores on the Levene's Test directly lead to assuming equal variances. The t-test showed that the Dual Enrollment on the Question 18 was not significant,  $t(87) = 0.685, p=0.495$ , for the participants. The Equality of Means between the groups Dual Enrollment and Traditional using the dependent variable Question 18 did happen by chance with  $p>.05$ . The table below shows the Levene's Test and t-Test for the effects of Dual Enrollment and Traditional groups on Question 18.

Table  
68

*Question 18*

<i>Levene's Test for Equality of Variances</i>						
		F	Sig			
Assumed		2.645	0.108			
Not Assumed						
<i>t-test for Equality of Means between groups Dual Enrollment and Traditional</i>						
t	df	Sig. (2-tailed)	Mean Difference	Std. Error Difference	95% Confidence Interval of the Difference	
0.685	87	0.495	0.156	0.227	-0.296	0.608
0.699	84.937	0.486	0.156	0.223	-0.287	0.599

Question 19

The t-Test examined for Equality of Means between the groups Dual Enrollment and Traditional using the dependent variable Question 19 on Motivated Strategies for Learning Questionnaire. The Levene's Test for Equality of Variances produced an F score of 0.749 and Significance of 0.389. These scores on the Levene's Test directly lead to assuming equal variances. The t-test showed that the Dual Enrollment on the Question 19 was not significant,  $t(88) = 0.415, p=0.679$ , for the participants. The Equality of Means between the groups Dual Enrollment and Traditional using the dependent variable Question 19 did happen by chance with  $p>.05$ . The table below shows the Levene's Test and t-Test for the effects of Dual Enrollment and Traditional groups on Question 19.

Table  
69

*Question 19*

<i>Levene's Test for Equality of Variances</i>						
	F	Sig.				
Assumed	0.749	0.389				
Not Assumed						
<i>t-test for Equality of Means between groups Dual Enrollment and Traditional</i>						
t	df	Sig. (2-tailed)	Mean Difference	Std. Error Difference	95% Confidence Interval of the Difference	
					Lower	Upper
0.415	88	0.679	0.075	0.181	-0.284	0.434
0.422	84.252	0.674	0.075	0.178	-0.278	0.428

Question 20

The t-Test examined for Equality of Means between the groups Dual Enrollment and Traditional using the dependent variable Question 20 on Motivated Strategies for Learning Questionnaire. The Levene's Test for Equality of Variances produced an F score of 10.349 and Significance of 0.002. These scores on the Levene's Test directly lead to not assuming equal variances. The t-test showed that the Dual Enrollment on the Question 20 was not significant,  $t(86.817) = 0.1185, p = 0.375$ , for the participants. The Equality of Means between the groups Dual Enrollment and Traditional using the dependent variable Question 20 did happen by chance with  $p > .05$ . The table below shows the Levene's Test and t-Test for the effects of Dual Enrollment and Traditional groups on Question 20.

Table  
70

*Question 20*

<i>Levene's Test for Equality of Variances</i>						
		F	Sig.			
Assumed		10.349	0.002			
Not Assumed						
<i>t-test for Equality of Means between groups Dual Enrollment and Traditional</i>						
t	df	Sig. (2- tailed)	Mean Difference	Std. Error Difference	95% Confidence Interval of the Difference	
					Lower	Upper
-1.143	87	0.256	-0.375	0.328	-1.027	0.277
-1.185	86.817	0.239	-0.375	0.316	-1.004	0.254

Question 21

The t-Test examined for Equality of Means between the groups Dual Enrollment and Traditional using the dependent variable Question 21 on Motivated Strategies for Learning Questionnaire. The Levene's Test for Equality of Variances produced an F score of 2.645 and Significance of 0.108. These scores on the Levene's Test directly lead to assuming equal variances. The t-test showed that the Dual Enrollment on the Question 21 was not significant,  $t(87) = 0.685, p=0.495$ , for the participants. The Equality of Means between the groups Dual Enrollment and Traditional using the dependent variable Question 21 did happen by chance with  $p>.05$ . The table below shows the Levene's Test and t-Test for the effects of Dual Enrollment and Traditional groups on Question 21.

Table  
71

*Question 21*

*Levene's Test for Equality of Variances*

	F	Sig.
Assumed	0.001	0.974
Not Assumed		

*t-test for Equality of Means between groups Dual Enrollment and Traditional*

t	df	Sig. (2- tailed)	Mean Difference	Std. Error Difference	95% Confidence Interval of the Difference	
					Lower	Upper
-0.231	90	0.818	-0.042	0.183	-0.407	0.322
-0.229	81.508	0.819	-0.042	0.185	-0.41	0.325

Question 22

The t-Test examined for Equality of Means between the groups Dual Enrollment and Traditional using the dependent variable Question 22 on Motivated Strategies for Learning Questionnaire. The Levene's Test for Equality of Variances produced an F score of 5.107 and Significance of 0.026. These scores on the Levene's Test directly lead to not assuming equal variances. The t-test showed that the Dual Enrollment on the Question 22 was not significant,  $t(88.966) = -0.838, p=0.404$ , for the participants. The Equality of Means between the groups Dual Enrollment and Traditional using the dependent variable Question 22 did happen by chance with  $p>.05$ . The table below shows the Levene's Test and t-Test for the effects of Dual Enrollment and Traditional groups on Question 22.

Table  
72

*Question 22*

<i>Levene's Test for Equality of Variances</i>						
		F	Sig			
Assumed		5.107	0.026			
Not Assumed						
<i>t-test for Equality of Means between groups Dual Enrollment and Traditional</i>						
t	df	Sig. (2-tailed)	Mean Difference	Std. Error Difference	95% Confidence Interval of the Difference	
					Lower	Upper
-0.816	89	0.417	-0.237	0.29	-0.814	0.34
-0.838	88.966	0.404	-0.237	0.283	-0.798	0.325



Question 23

The t-Test examined for Equality of Means between the groups Dual Enrollment and Traditional using the dependent variable Question 23 on Motivated Strategies for Learning Questionnaire. The Levene's Test for Equality of Variances produced an F score of .01 and Significance of 0.922. These scores on the Levene's Test directly lead to assuming equal variances. The t-test showed that the Dual Enrollment on the Question 23 was not significant,  $t(89) = -1.7, p=0.093$ , for the participants. The Equality of Means between the groups Dual Enrollment and Traditional using the dependent variable Question 23 did happen by chance with  $p>.05$ . The table below shows the Levene's Test and t-Test for the effects of Dual Enrollment and Traditional groups on Question 23.

Table  
73

*Questio. 23*

*Levene's Test for Equality of Variances*

	F	Sig.
Assumed	0.01	0.922
Not Assumed		

*t-test for Equality of Means between groups Dual Enrollment and Traditional*

t	df	Sig. (2-tailed)	Mean Difference	Std. Error Difference	95% Confidence Interval of the Difference	
					Lower	Upper
-1.7	89	0.093	-0.376	0.221	-0.816	0.063
-1.694	82.622	0.094	-0.376	0.222	-0.819	0.066

Question 24

The t-Test examined for Equality of Means between the groups Dual Enrollment and Traditional using the dependent variable Question 24 on Motivated Strategies for Learning Questionnaire. The Levene's Test for Equality of Variances produced an F score of 1.633 and Significance of 0.205. These scores on the Levene's Test directly lead to assuming equal variances. The t-test showed that the Dual Enrollment on the Question 24 was not significant,  $t(89) = 0.585, p=0.560$ , for the participants. The Equality of Means between the groups Dual Enrollment and Traditional using the dependent variable Question 24 did happen by chance with  $p>.05$ . The table below shows the Levene's Test and t-Test for the effects of Dual Enrollment and Traditional groups on Question 24.

Table  
74

*Question 24*

*Levene's Test for Equality of Variances*

	F	Sig.
Assumed	1.633	0.205
Not Assumed		

*t-test for Equality of Means between groups Dual Enrollment and Traditional*

t	df	Sig. (2- tailed)	Mean Difference	Std. Error Difference	95% Confidence Interval of the Difference	
					Lower	Upper
0.585	89	0.560	0.129	0.22	-0.309	0.567
0.604	88.988	0.548	0.129	0.214	-0.295	0.553

Question 25

The t-Test examined for Equality of Means between the groups Dual Enrollment and Traditional using the dependent variable Question 25 on Motivated Strategies for Learning Questionnaire. The Levene's Test for Equality of Variances produced an F score of 0.180 and Significance of 0.672. These scores on the Levene's Test directly lead to assuming equal variances. The t-test showed that the Dual Enrollment on the Question 25 was not significant,  $t(89) = -1.154, p=0.25$ , for the participants. The Equality of Means between the groups Dual Enrollment and Traditional using the dependent variable Question 25 did happen by chance with  $p>.05$ . The table below shows the Levene's Test and t-Test for the effects of Dual Enrollment and Traditional groups on Question 25.

Table  
75

*Questio. 25*

<i>Levene's Test for Equality of Variances</i>							
		F	Sig				
Assumed		0.18	0.672				
Not Assumed							
<i>t-test for Equality of Means between groups Dual Enrollment and Traditional</i>							
t	df	Sig. tailed)	(2- Mean Difference	Std. Error Difference	95% Confidence Interval of the Difference		
					Lower	Upper	
-1.15	8	0.25	-0.28	0.24	-0.76	0.20	
-1.14	80.92	0.25	-0.28	0.24	-0.77	0.20	

Question 26

The t-Test examined for Equality of Means between the groups Dual Enrollment and Traditional using the dependent variable Question 26 on Motivated Strategies for Learning Questionnaire. The Levene's Test for Equality of Variances produced an F score of 1.270 and Significance of 0.263. These scores on the Levene's Test directly lead to assuming equal variances. The t-test showed that the Dual Enrollment on the Question 26 was not significant,  $t(88) = 0.715, p=0.476$ , for the participants. The Equality of Means between the groups Dual Enrollment and Traditional using the dependent variable Question 26 did happen by chance with  $p>.05$ . The table below shows the Levene's Test and t-Test for the effects of Dual Enrollment and Traditional groups on Question 26.

Table  
76

*Question 26*

<i>Levene's Test for Equality of Variances</i>						
		F	Sig.			
Assumed		1.27	0.263			
Not Assumed						

  

<i>t-test for Equality of Means between groups Dual Enrollment and Traditional</i>						
t	df	Sig. (2-tailed)	Mean Difference	Std. Error Difference	95% Confidence Interval of the Difference	
					Lower	Upper
0.715	88	0.476	0.213	0.297	-0.378	0.803
0.728	86.195	0.469	0.213	0.292	-0.368	0.794

Question 27

The t-Test examined for Equality of Means between the groups Dual Enrollment and Traditional using the dependent variable Question 27 on Motivated Strategies for Learning Questionnaire. The Levene's Test for Equality of Variances produced an F score of 5.263 and Significance of 0.024. These scores on the Levene's Test directly lead to not assuming equal variances. The t-test showed that the Dual Enrollment on the Question 27 was not significant,  $t(87.256) = -1.252, p=0.214$ , for the participants. The Equality of Means between the groups Dual Enrollment and Traditional using the dependent variable Question 27 did happen by chance with  $p>.05$ . The table below shows the Levene's Test and t-Test for the effects of Dual Enrollment and Traditional groups on Question 27.

Table  
77

<i>Question 27</i>						
<i>Levene's Test for Equality of Variances</i>						
		F	Sig			
Assumed		5.263	0.024			
Not Assumed						
<i>t-test for Equality of Means between groups Dual Enrollment and Traditional</i>						
t	df	Sig. (2-tailed)	Mean Difference	Std. Error Difference	95% Confidence Interval of the Difference	
					Lower	Upper
-1.223	88	0.225	-0.326	0.266	-0.855	0.204
-1.252	87.256	0.214	-0.326	0.26	-0.843	0.191

Question 28

The t-Test examined for Equality of Means between the groups Dual Enrollment and Traditional using the dependent variable Question 28 on Motivated Strategies for Learning Questionnaire. The Levene's Test for Equality of Variances produced an F score of 0.071 and Significance of 0.791. These scores on the Levene's Test directly lead to assuming equal variances. The t-test showed that the Dual Enrollment on the Question 28 was not significant,  $t(89) = -1.570, p=0.120$ , for the participants. The Equality of Means between the groups Dual Enrollment and Traditional using the dependent variable Question 28 did happen by chance with  $p>.05$ . The table below shows the Levene's Test and t-Test for the effects of Dual Enrollment and Traditional groups on Question 28.

Table  
78

*Question 28*

<i>Levene's Test for Equality of Variances</i>						
	F	Sig				
Assumed	0.071	0.791				
Not Assumed						

  

<i>t-test for Equality of Means between groups Dual Enrollment and Traditional</i>						
t	df	Sig. (2-tailed)	Mean Difference	Std. Error Difference	95% Confidence Interval of the Difference	
					Lower	Upper
-1.572	89	0.12	-0.308	0.196	-0.697	0.081
-1.546	76.547	0.126	-0.308	0.199	-0.704	0.089

Question 29

The t-Test examined for Equality of Means between the groups Dual Enrollment and Traditional using the dependent variable Question 29 on Motivated Strategies for Learning Questionnaire. The Levene's Test for Equality of Variances produced an F score of 0.031 and Significance of 0.860. These scores on the Levene's Test directly lead to assuming equal variances. The t-test showed that the Dual Enrollment on the Question 29 was not significant,  $t(88) = -0.55, p=0.585$ , for the participants. The Equality of Means between the groups Dual Enrollment and Traditional using the dependent variable Question 1 did happen by chance with  $p>.05$ . The table below shows the Levene's Test and t-Test for the effects of Dual Enrollment and Traditional groups on Question 29.

Table  
79

*Question 29*

<i>Levene's Test for Equality of Variances</i>						
		F	Sig.			
Assumed		0.031	0.86			
Not Assumed						

  

<i>t-test for Equality of Means between groups Dual Enrollment and Traditional</i>						
t	df	Sig. (2-tailed)	Mean Difference	Std. Error Difference	95% Confidence Interval of the Difference	
					Lower	Upper
-0.547	88	0.585	-0.103	0.187	-0.475	0.27
-0.54	77.324	0.591	-0.103	0.19	-0.481	0.276

Question 30

The t-Test examined for Equality of Means between the groups Dual Enrollment and Traditional using the dependent variable Question 30 on Motivated Strategies for Learning Questionnaire. The Levene's Test for Equality of Variances produced an F score of 0.173 and Significance of 0.679. These scores on the Levene's Test directly lead to assuming equal variances. The t-test showed that the Dual Enrollment on the Question 30 was not significant,  $t(88) = -0.796, p=0.428$ , for the participants. The Equality of Means between the groups Dual Enrollment and Traditional using the dependent variable Question 30 did happen by chance with  $p>.05$ . The table below shows the Levene's Test and t-Test for the effects of Dual Enrollment and Traditional groups on Question 30

Table  
80

<i>Question 30</i>						
<i>Levene's Test for Equality of Variances</i>						
		F	Sig.			
Assumed		0.173	0.679			
Not Assumed						
<i>t-test for Equality of Means between groups Dual Enrollment and Traditional</i>						
t	df	Sig. (2-tailed)	Mean Difference	Std. Error Difference	95% Confidence Interval of the Difference	
					Lower	Upper
-0.796	88	0.428	-0.149	0.188	-0.522	0.223
-0.789	78.853	0.433	-0.149	0.189	-0.526	0.228



Question 31

The t-Test examined for Equality of Means between the groups Dual Enrollment and Traditional using the dependent variable Question 31 on Motivated Strategies for Learning Questionnaire. The Levene's Test for Equality of Variances produced an F score of 0.525 and Significance of 0.470. These scores on the Levene's Test directly lead to assuming equal variances. The t-test showed that the Dual Enrollment on the Question 31 was not significant,  $t(90) = -1.765, p=0.081$ , for the participants. The Equality of Means between the groups Dual Enrollment and Traditional using the dependent variable Question 31 did happen by chance with  $p>.05$ . The table below shows the Levene's Test and t-Test for the effects of Dual Enrollment and Traditional groups on Question 31.

Table  
81

<i>Question 31</i>							
<i>Levene's Test for Equality of Variances</i>							
	F	Sig					
Assumed	0.525	0.470					
Not Assumed							
<i>t-test for Equality of Means between groups Dual Enrollment and Traditional</i>							
t	df	Sig. (2-tailed)	Mean Difference	Std. Error Difference	95% Confidence Interval of the Difference		
					Lower	Upper	
-1.765	90	0.081	-0.517	0.293	-1.1	0.065	
-1.749	80.955	0.084	-0.517	0.296	-1.106	0.071	

Question 32

The t-Test examined for Equality of Means between the groups Dual Enrollment and Traditional using the dependent variable Question 32 on Motivated Strategies for Learning Questionnaire. The Levene's Test for Equality of Variances produced an F score of 4.27 and Significance of 0.042. These scores on the Levene's Test directly lead to not assuming equal variances. The t-test showed that the Dual Enrollment on the Question 32 was not significant,  $t(88.3) = -1.120, p=0.266$ , for the participants. The Equality of Means between the groups Dual Enrollment and Traditional using the dependent variable Question 32 did happen by chance with  $p>.05$ . The table below shows the Levene's Test and t-Test for the effects of Dual Enrollment and Traditional groups on Question 32.

Table  
82

<i>Question 32</i>						
<i>Levene's Test for Equality of Variances</i>						
	F	Sig.				
Assumed	4.27	0.042				
Not Assumed						
<i>t-test for Equality of Means between groups Dual Enrollment and Traditional</i>						
t	df	Sig. (2-tailed)	Mean Difference	Std. Error Difference	95% Confidence Interval of the Difference	
					Lower	Upper
-1.098	89	0.275	-0.339	0.309	-0.952	0.274
-1.119	88.3	0.266	-0.339	0.303	-0.94	0.263

Question 33

The t-Test examined for Equality of Means between the groups Dual Enrollment and Traditional using the dependent variable Question 33 on Motivated Strategies for Learning Questionnaire. The Levene's Test for Equality of Variances produced an F score of 0.069 and Significance of 0.794. These scores on the Levene's Test directly lead to assuming equal variances. The t-test showed that the Dual Enrollment on the Question 33 was not significant,  $t(89) = .368, p=0.714$ , for the participants. The Equality of Means between the groups Dual Enrollment and Traditional using the dependent variable Question 33 did happen by chance with  $p>.05$ . The table below shows the Levene's Test and t-Test for the effects of Dual Enrollment and Traditional groups on Question 33.

Table  
83

*Question 33*

<i>Levene's Test for Equality of Variances</i>						
		F	Sig			
Assumed		0.069	0.794			
Not Assumed						

  

<i>t-test for Equality of Means between groups Dual Enrollment and Traditional</i>						
					95% Confidence Interval of the Difference	
t	df	Sig. (2-tailed)	Mean Difference	Std. Error Difference	Lower	Upper
0.368	89	0.714	0.084	0.228	-0.369	0.537
0.368	84.288	0.714	0.084	0.228	-0.369	0.537

Question 34

The t-Test examined for Equality of Means between the groups Dual Enrollment and Traditional using the dependent variable Question 34 on Motivated Strategies for Learning Questionnaire. The Levene's Test for Equality of Variances produced an F score of 1.634 and Significance of 0.204. These scores on the Levene's Test directly lead to assuming equal variances. The t-test showed that the Dual Enrollment on the Question 34 was not significant,  $t(89) = -0.629, p=0.531$ , for the participants. The Equality of Means between the groups Dual Enrollment and Traditional using the dependent variable Question 34 did happen by chance with  $p>.05$ . The table below shows the Levene's Test and t-Test for the effects of Dual Enrollment and Traditional groups on Question 34.

Table  
84

<i>Question 34</i>						
<i>Levene's Test for Equality of Variances</i>						
	F	Sig.				
Assumed	1.634	0.204				
Not Assumed						
<i>t-test for Equality of Means between groups Dual Enrollment and Traditional</i>						
t	df	Sig. (2-tailed)	Mean Difference	Std. Error Difference	95% Confidence Interval of the Difference	
					Lower	Upper
-0.629	89	0.531	-0.148	0.235	-0.615	0.319
-0.639	87.644	0.525	-0.148	0.232	-0.609	0.313

Question 35

The t-Test examined for Equality of Means between the groups Dual Enrollment and Traditional using the dependent variable Question 35 on Motivated Strategies for Learning Questionnaire. The Levene's Test for Equality of Variances produced an F score of 0.135 and Significance of 0.714. These scores on the Levene's Test directly lead to assuming equal variances. The t-test showed that the Dual Enrollment on the Question 35 was not significant,  $t(89) = -0.028, p=0.777$ , for the participants. The Equality of Means between the groups Dual Enrollment and Traditional using the dependent variable Question 35 did happen by chance with  $p>.05$ . The table below shows the Levene's Test and t-Test for the effects of Dual Enrollment and Traditional groups on Question 35.

Table  
85

<i>Question 35</i>						
<i>Levene's Test for Equality of Variances</i>						
	F	Sig.				
Assumed	0.135	0.714				
Not Assumed						
<i>t-test for Equality of Means between groups Dual Enrollment and Traditional</i>						
t	df	Sig. (2-tailed)	Mean Difference	Std. Error Difference	95% Confidence Interval of the Difference	
					Lower	Upper
-0.284	89	0.777	-0.068	0.238	-0.541	0.406
-0.286	86.227	0.775	-0.068	0.236	-0.537	0.402

Question 36

The t-Test examined for Equality of Means between the groups Dual Enrollment and Traditional using the dependent variable Question 36 on Motivated Strategies for Learning Questionnaire. The Levene's Test for Equality of Variances produced an F score of 1.024 and Significance of 0.314. These scores on the Levene's Test directly lead to assuming equal variances. The t-test showed that the Dual Enrollment on the Question 36 was not significant,  $t(90) = -0.66, p=0.511$ , for the participants. The Equality of Means between the groups Dual Enrollment and Traditional using the dependent variable Question 36 did happen by chance with  $p>.05$ . The table below shows the Levene's Test and t-Test for the effects of Dual Enrollment and Traditional groups on Question 36.

Table  
86

<i>Question 36</i>						
<i>Levene's Test for Equality of Variances</i>						
	F	Sig.				
Assumed	1.024	0.314				
Not Assumed						
<i>t-test for Equality of Means between groups Dual Enrollment and Traditional</i>						
t	df	Sig. (2-tailed)	Mean Difference	Std. Error Difference	95% Confidence Interval of the Difference	
					Lower	Upper
-0.659	90	0.511	-0.158	0.239	-0.633	0.318
-0.676	89.586	0.501	-0.158	0.233	-0.621	0.306

Question 37

The t-Test examined for Equality of Means between the groups Dual Enrollment and Traditional using the dependent variable Question 37 on Motivated Strategies for Learning Questionnaire. The Levene's Test for Equality of Variances produced an F score of 0.563 and Significance of 0.463. These scores on the Levene's Test directly lead to assuming equal variances. The t-test showed that the Dual Enrollment on the Question 37 was not significant,  $t(89) = -0.055, p=0.956$ , for the participants. The Equality of Means between the groups Dual Enrollment and Traditional using the dependent variable Question 37 did happen by chance with  $p>.05$ . The table below shows the Levene's Test and t-Test for the effects of Dual Enrollment and Traditional groups on Question 37.

Table  
87

<i>Question</i>		<i>37</i>	
<i>Levene's Test for Equality of Variances</i>			
	F	Sig	
Assumed	0.543	0.463	
Not Assumed			

  

<i>t-test for Equality of Means between groups Dual Enrollment and Traditional</i>						
t	df	Sig. (2-tailed)	Mean Difference	Std. Error Difference	95% Confidence Interval of the Difference	
					Lower	Upper
-0.055	89	0.956	-0.016	0.293	-0.599	0.567
-0.056	85.78	0.956	-0.016	0.291	-0.595	0.563

Question 38

The t-Test examined for Equality of Means between the groups Dual Enrollment and Traditional using the dependent variable Question 38 on Motivated Strategies for Learning Questionnaire. The Levene's Test for Equality of Variances produced an F score of 0.158 and Significance of 0.692. These scores on the Levene's Test directly lead to assuming equal variances. The t-test showed that the Dual Enrollment on the Question 38 was not significant,  $t(89) = -0.208, p=0.835$ , for the participants. The Equality of Means between the groups Dual Enrollment and Traditional using the dependent variable Question 38 did happen by chance with  $p>.05$ . The table below shows the Levene's Test and t-Test for the effects of Dual Enrollment and Traditional groups on Question 38.

Table  
88

<i>Question</i>		<i>38</i>				
<i>Levene's Test for Equality of Variances</i>						
		<b>F</b>	<b>Sig</b>			
Assumed		0.158	0.692			
Not Assumed						
<i>t-test for Equality of Means between groups Dual Enrollment and Traditional</i>						
				<b>95% Confidence Interval o the Difference</b>		
<b>t</b>	<b>df</b>	<b>Sig. (2-tailed)</b>	<b>Mean Difference</b>	<b>Std. Error Difference</b>	<b>Lower</b>	<b>Upper</b>
-0.208	89	0.835	-0.061	0.294	-0.645	0.523
-0.209	84.854	0.835	-0.061	0.293	-0.644	0.521



Question 39

The t-Test examined for Equality of Means between the groups Dual Enrollment and Traditional using the dependent variable Question 39 on Motivated Strategies for Learning Questionnaire. The Levene's Test for Equality of Variances produced an F score of 0.044 and Significance of 0.834. These scores on the Levene's Test directly lead to assuming equal variances. The t-test showed that the Dual Enrollment on the Question 39 was not significant,  $t(89) = -0.082, p=0.935$ , for the participants. The Equality of Means between the groups Dual Enrollment and Traditional using the dependent variable Question 39 did happen by chance with  $p>.05$ . The table below shows the Levene's Test and t-Test for the effects of Dual Enrollment and Traditional groups on Question 39.

Table  
89

*Question 39*

<i>Levene's Test for Equality of Variances</i>						
		F	Sig			
Assumed		0.044	0.834			
Not Assumed						

  

<i>t-test for Equality of Means between groups Dual Enrollment and Traditional</i>						
t	df	Sig. (2-tailed)	Mean Difference	Std. Error Difference	95% Confidence Interval of the Difference	
					Lower	Upper
-0.082	89	0.935	-0.014	0.167	-0.345	0.317
-0.083	86.291	0.934	-0.014	0.165	-0.342	0.315

Question 40

The t-Test examined for Equality of Means between the groups Dual Enrollment and Traditional using the dependent variable Question 40 on Motivated Strategies for Learning Questionnaire. The Levene's Test for Equality of Variances produced an F score of 0.181 and Significance of 0.672. These scores on the Levene's Test directly lead to assuming equal variances. The t-test showed that the Dual Enrollment on the Question 40 was not significant,  $t(89) = -1.124, p=0.264$ , for the participants. The Equality of Means between the groups Dual Enrollment and Traditional using the dependent variable Question 40 did happen by chance with  $p>.05$ . The table below shows the Levene's Test and t-Test for the effects of Dual Enrollment and Traditional groups on Question 40.

Table  
90

<i>Question 40</i>						
<i>Levene's Test for Equality of Variances</i>						
		F	Sig			
Assumed		0.181	0.672			
Not Assumed						
<i>t-test for Equality of Means between groups Dual Enrollment and Traditional</i>						
t	df	Sig. (2-tailed)	Mean Difference	Std. Error Difference	95% Confidence Interval of the Difference	
					Lower	Upper
-1.124	89	0.264	-0.239	0.213	-0.662	0.184
-1.122	83.176	0.265	-0.239	0.213	-0.663	0.185

Question 41

The t-Test examined for Equality of Means between the groups Dual Enrollment and Traditional using the dependent variable Question 41 on Motivated Strategies for Learning Questionnaire. The Levene's Test for Equality of Variances produced an F score of 0.042 and Significance of 0.838. These scores on the Levene's Test directly lead to assuming equal variances. The t-test showed that the Dual Enrollment on the Question 41 was not significant,  $t(89) = -0.996, p=0.322$ , for the participants. The Equality of Means between the groups Dual Enrollment and Traditional using the dependent variable Question 41 did happen by chance with  $p>.05$ . The table below shows the Levene's Test and t-Test for the effects of Dual Enrollment and Traditional groups on Question 41.

Table  
91

<i>Question 41</i>						
<i>Levene's Test for Equality of Variances</i>						
		F	Sig			
Assumed		0.042	0.838			
Not Assumed		2				
<i>t-test for Equality of Means between groups Dual Enrollment and Traditional</i>						
					95% Confidence Interval of the Difference	
t	df	Sig. (2-tailed)	Mean Difference	Std. Error Difference	Lower	Upper
-0.996	89	0.322	-0.252	0.253	-0.754	0.251
-1.01	87.392	0.315	-0.252	0.25	-0.748	0.244

Question 42

The t-Test examined for Equality of Means between the groups Dual Enrollment and Traditional using the dependent variable Question 42 on Motivated Strategies for Learning Questionnaire. The Levene's Test for Equality of Variances produced an F score of 0.055 and Significance of 0.815. These scores on the Levene's Test directly lead to assuming equal variances. The t-test showed that the Dual Enrollment on the Question 42 was significant,  $t(89) = -2.037, p=0.045$ , for the participants. The Equality of Means between the groups Dual Enrollment and Traditional using the dependent variable Question 42 did not happen by chance with  $p<.05$ . The table below shows the Levene's Test and t-Test for the effects of Dual Enrollment and Traditional groups on Question 42.

Table  
92

<i>Question 42</i>						
<i>Levene's Test for Equality of Variances</i>						
		F	Sig			
Assumed		0.055	0.815			
Not Assumed						
<i>t-test for Equality of Means between groups Dual Enrollment and Traditional</i>						
t	df	Sig. (2-tailed)	Mean Difference	Std. Error Difference	95% Confidence Interval of the Difference	
					Lower	Upper
-2.037	89	0.045	-0.646	0.317	-1.275	-0.016
-2.027	82.294	0.046	-0.646	0.319	-1.279	-0.012

Question 43

The t-Test examined for Equality of Means between the groups Dual Enrollment and Traditional using the dependent variable Question 43 on Motivated Strategies for Learning Questionnaire. The Levene's Test for Equality of Variances produced an F score of 0.085 and Significance of 0.984. These scores on the Levene's Test directly lead to assuming equal variances. The t-test showed that the Dual Enrollment on the Question 43 was not significant,  $t(90) = -0.021, p=0.984$ , for the participants. The Equality of Means between the groups Dual Enrollment and Traditional using the dependent variable Question 43 did happen by chance with  $p>.05$ . The table below shows the Levene's Test and t-Test for the effects of Dual Enrollment and Traditional groups on Question 43.

Table  
93

*Question 43*

<i>Levene's Test for Equality of Variances</i>						
		F	Sig			
Assumed		0.085	0.772			
Not Assumed						

  

<i>t-test for Equality of Means between groups Dual Enrollment and Traditional</i>						
t	df	Sig. (2-tailed)	Mean Difference	Std. Error Difference	95% Confidence Interval of the Difference	
					Lower	Upper
-0.021	90	0.984	-0.004	0.186	-0.373	0.365
-0.020	79.851	0.984	-0.004	0.188	-0.378	0.370

Question 44

The t-Test examined for Equality of Means between the groups Dual Enrollment and Traditional using the dependent variable Question 44 on Motivated Strategies for Learning Questionnaire. The Levene's Test for Equality of Variances produced an F score of 0.528 and Significance of 0.469. These scores on the Levene's Test directly lead to assuming equal variances. The t-test showed that the Dual Enrollment on the Question 44 was not significant,  $t(89) = -1.052, p=0.295$ , for the participants. The Equality of Means between the groups Dual Enrollment and Traditional using the dependent variable Question 44 did happen by chance with  $p>.05$ . The table below shows the Levene's Test and t-Test for the effects of Dual Enrollment and Traditional groups on Question 44.

Table  
94

<i>Question 44</i>						
<i>Levene's Test for Equality of Variances</i>						
		F	Sig			
	Assumed	0.528	0.469			
	Not Assumed					
<i>t-test for Equality of Means between groups Dual Enrollment and Traditional</i>						
					95% Confidence Interval of the Difference	
t	df	Sig. (2-tailed)	Mean Difference	Std. Error Difference	Lower	Upper
-1.052	89	0.295	-0.185	0.176	-0.534	0.164
-1.045	81.423	0.299	-0.185	0.177	-0.537	0.167

## Summary

This Chapter showed the outcomes of the research study of the MSLQ survey. The raw data from the MSLQ instrument was transferred into SPSS software. The two-main process of SPSS were used, descriptive data and a t-test. The descriptive data left showed no major difference from the two group. The only exception of this was gender, the female gender participants were a much higher percentage in Dual Enrollment group than the Traditional group. SPSS t-test, letting us know if there is something significant happening between those who participated in Dual Enrollment and those who went to college the traditional way or if there was no real difference. The t-test showed that with Overall Score, Individual Questions (except for three discussed further in findings), and Ethnicity there was no significance or a difference that did not happen by mere chance. As for the female gender participant percentage increase in Dual Enrollment, something other than mere chance was cause this increase.

## CHAPTER 5

### SUMMARY, CONCLUSIONS, IMPLICATIONS, AND RECOMMENDATIONS

#### Introduction

Chapter 1 presented the background, problem and Questions of the research study. Chapter 2 is a review of literature related to Dual Enrollment, adult learners, self-directed learning strategies and teaching methodologies. Chapter 3 reviews the process concerning the collection of survey data and the interpretation of the data collected. Chapter 4 identifies the results and findings from the survey data. Chapter 5 is the summary of the paper. This chapter contains any conclusion, implications, or recommendations that the research study can support.

#### Purpose of the Study

The purpose of this study was to examine differences between dual enrollment and traditional students in a community college in the southeast region of Alabama. This study identified the extent students of the dual enrollment programs used Self-directed learning strategies in comparison to the traditional community college students. Dual enrollment students have an easier adjustment to college than traditional students (Jester, 2006). High School students in dual enrollment program earn college credit and then graduate earlier than traditional students. This makes dual enrollment college graduation and/or integration into the workplace quicker (Townsend, 2000). Encouraging high school students to become self-directed learners during their junior or senior year while taking a dual enrollment course might serve as the catalyst to self-directedness.



## Research Questions

This study used the following research questions:

- 1) What are the Self-directed learning strategies of students who were dual enrolled?
- 2) What are the Self-directed learning strategies of students who were not dual enrolled?
- 3) What are the differences in Self-directed learning strategies between dual enrolled and not dual enrolled students?

## Summary

The descriptive data and t-test results showed that there was very little statistical difference between dual enrollment students and traditional students. The overall score difference was .09 difference in average and the t-test showed that it happened by chance. Most questions except for three results on the t-test showed it probably happened by chance. As for gender, Dual Enrollment participants were 27.5 percent female and Traditional participants were 5.8 percent female. The t-test showed that gender difference did not happen by chance. The three MSLQ questions that probably did not happen by chance were 1, 12, and 42. Question 1 had the Dual Enrollment Participants scoring higher than the Traditional participants by .43 average, which was a slight statistical difference. Question 1 was “I prefer class work that is challenging so I can learn new things.” This showed that by slight average the Dual Enrollment participants were more intrinsic value and could see them using this material in later classes. The t-test confirmed that this did not happen by chance. Question 12 had the Traditional participants scoring higher than the Dual Enrollment participants do by .73 average. Question 12 was “I have an uneasy, upset feeling when I take a test.” This showed that Traditional participants had better scores with test anxiety as it relates to this question. The t-test confirmed that this did not happen by chance. Question 42 had the Traditional participants scoring higher than the Dual

Enrollment participants do by .64 average. Question 42 was “I outline the chapters in my book to help me study.” This question showed Traditional participants skill better on this question with cognitive strategy use. These three questions and gender are they only question out of the survey that had significance on the t-test. The results of research show that the Dual Enrollment group and Traditional group had no major differences. The two question to one question score difference on forty-four questions did little to show any major differences on the MSLQ between the two groups.

### Conclusions

This study attempted to answer research questions related to Dual Enrollment students becoming Self-Directed Learners at an accelerated pace compared to Traditional college students. The study found that Self-directed learning strategies of students who were dual enrolled students and are presently in community college have become advance Self-directed Learners. The study found that Self-directed learning strategies of students who were Traditional students and are presently in community college have become advance Self-directed Learners. This study can find no quantified differences between Dual Enrollment students and traditional students as it relates to Self-directed learning strategies.

### Implications

Dual Enrollment and Traditional students look to be striving in community college no matter the way they took to get there. Dual Enrollment classes did not have a negative impact on the students even though Dual Enrollment student enter with as much as two years of college completed. Many of the Traditional students were already working in industry and taking night classes. This would have increased their Overall Score on the MSLQ. Who was working in industry or how many Dual Enrollment classes completed was not tracked on survey, but if

survey research is conducted in Dual Enrollment vs Traditional these issues should be taken into account.

### Recommendations

The Campuses of Enterprise and Ozark were used for this study. Teacher in the Ozark campus sent majority of the students to the computer room when I was there. Enterprise campus accounted for around twenty of the completed surveys. Enterprise Campus is where the traditional classes are taught. Ozark is home to the A&P or aviation maintenance courses. No data was captured on the survey to quantify this. This knowledge and Gender participants of female students being higher in Dual Enrollment might warrant further study. With an increase in female students graduating college and entering college, dual enrollment might be a tool to increase the number of females that enter male dominated trades. This field has a need to increase female mechanics and Dual Enrollment might be a tool to assist the Aviation community.

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## Appendix A



The Auburn University Institutional  
Review Board has approved this  
document for use from  
10/30/15 to 10/29/18  
Protocol # 15-453 EX 1510

### AUBURN UNIVERSITY

#### COLLEGE OF EDUCATION

EDUCATIONAL FOUNDATIONS, LEADERSHIP AND TECHNOLOGY

(NOTE: DO NOT AGREE TO PARTICIPATE UNLESS AN IRB APPROVAL STAMP WITH CURRENT DATES HAS BEEN APPLIED TO THIS DOCUMENT.)

#### INFORMATION LETTER

for a Research Study entitled

**“Differences between Dual Enrollment and Main Stream Students: A comparative analysis”**

**You are invited to participate in a research study** investigating differences between dual enrollment and main stream students. The study is being conducted by James Stockton, Graduate Student, under the direction of Dr. James E. Witte, Professor, in the Auburn University Department of EFLT/COE. You are invited to participate because you are enrolled at Enterprise State Community College and are age 18 or older.

**What will be involved if you participate?** If you decide to participate in this research study, you will be asked to complete an anonymous survey. Your total time commitment will be approximately 20 to 25 minutes.

**Are there any risks or discomforts?** There are no risks associated with participating in this study.

**Are there any benefits to yourself or others?** There are no benefits associated with this study.

**Will you receive compensation for participating?** There is no compensation for participating with this study.

**Are there any costs?** There is no cost to you associated with this study.

4036 Haley Center, Auburn, AL 3684-5221; Telephone: 334-844-4460; Fax: 334-844-3072

w w w . a u b u r n . e d u

**If you change your mind about participating**, you can withdraw at any time during the study. Your participation is completely voluntary. If you choose to withdraw, your data can be withdrawn as long as it is identifiable. Your decision about whether or not to participate or to stop participating will not jeopardize your future relations with Auburn University, the Department of Education or Enterprise State Community College.

**Any data obtained in connection with this study will remain anonymous**. We will protect your privacy and the data you provide. Information collected through your participation may be (*e.g., used to fulfill an educational requirement, published in a professional journal, and/or presented at a professional meeting, etc.*)

**If you have questions about this study**, please ask them now or contact James Stockton at 808-291-3887 or email me at [jcs0065@tigermail.auburn.edu](mailto:jcs0065@tigermail.auburn.edu).

**If you have questions about your rights as a research participant**, you may contact the Auburn University Office of Research Compliance or the Institutional Review Board by phone (334)-844-5966 or e-mail at [IRBadmin@auburn.edu](mailto:IRBadmin@auburn.edu) or [IRBChair@auburn.edu](mailto:IRBChair@auburn.edu).

HAVING READ THE INFORMATION PROVIDED, YOU MUST DECIDE IF YOU WANT TO PARTICIPATE IN THIS RESEARCH PROJECT. IF YOU DECIDE TO PARTICIPATE, THE DATA YOU PROVIDE WILL SERVE AS YOUR AGREEMENT TO DO SO. THIS LETTER IS YOURS TO KEEP.

9/28/2015

**STOCKTON.JAMES.CLI  
NTON.1185851148**

Investigator's signature

Date



James C. Stockton

Print Name

**Where you born before 10/15/1997?**

- Yes
- No

**Did you take Dual Enrollment classes in high school?**

- Yes
- No

**What is your gender?**

- Male
- Female

**What is your Ethnicity?**

- Black or African - American
- Hispanic or Latino
- White
- Native American or American Indian
- Asian / Pacific Islander
- Other

**Section 1**



Please rate the following based on your behavior based in this class. Your rating should be on a 5-point scale where 1= not true of me to 5= very true of me.

\*Pintrich, R. R., & DeGroot, E. V. (1990). Motivational and self-regulated learning components of classroom academic performance, *Journal of Educational Psychology*, 82, 33-40

	1	2	3	4	5
1. I prefer class work that is challenging so I can learn new things.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
	1	2	3	4	5
2. Compared with other students in this class I expect to do well	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
	1	2	3	4	5
3. I am so nervous during a test that I cannot remember facts I have learned	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
	1	2	3	4	5
4. It is important for me to learn what is being taught in this class	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
	1	2	3	4	5
5. I like what I am learning in this class	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

## Section 2

Please rate the following based on your behavior based in this class. Your rating should be on a 5-point scale where 1= not true of me to 5= very true of me.

\*Pintrich, R. R., & DeGroot, E. V. (1990). Motivational and self-regulated learning components of classroom academic performance, *Journal of Educational Psychology*, 82, 33-40

	1	2	3	4	5
6. I'm certain I can understand the ideas taught in this course	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
	1	2	3	4	5
7. I think I will be able to use what I learn in this class in other classes	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
	1	2	3	4	5
8. I expect to do very well in this class	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
	1	2	3	4	5
9. Compared with others in this class, I think I'm a good student	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
	1	2	3	4	5
10. I often choose paper topics I will learn something from even if they require more work	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

## Section 3

Please rate the following based on your behavior based in this class. Your rating should be on a 5-point scale where 1= not true of me to 5= very true of me.

\*Pintrich, R. R., & DeGroot, E. V. (1990). Motivational and self-regulated learning components of classroom academic performance, *Journal of Educational Psychology*, 82, 33-40

	1	2	3	4	5
11. I am sure I can do an excellent job on the problems and tasks assigned for this class	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
	1	2	3	4	5
12. I have an uneasy, upset feeling when I take a test	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
	1	2	3	4	5
13. I think I will receive a good grade in this class	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
	1	2	3	4	5
14. Even when I do poorly on a test I try to learn from my mistakes	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
	1	2	3	4	5
15. I think that what I am learning in this class is useful for me to know	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

#### Section 4

Please rate the following based on your behavior based in this class. Your rating should be on a 5-point scale where 1= not true of me to 5= very true of me.

\*Pintrich, R. R., & DeGroot, E. V. (1990). Motivational and self-regulated learning components of classroom academic performance, *Journal of Educational Psychology*, 82, 33-40

	1	2	3	4	5
16. My study skills are excellent compared with others in this class	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
	1	2	3	4	5
17. I think that what we are learning in this class is interesting	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
	1	2	3	4	5
18. Compared with other students in this class I think I know a great deal about the subject	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
	1	2	3	4	5
19. I know that I will be able to learn the material for this class	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
	1	2	3	4	5
20. I worry a great deal about tests	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

#### Section 5

Please rate the following based on your behavior based in this class. Your rating should be on a 5-point scale where 1= not true of me to 5= very true of me.

\*Pintrich, R. R., & DeGroot, E. V. (1990). Motivational and self-regulated learning components of classroom academic performance, *Journal of Educational Psychology*, 82, 33-40

	1	2	3	4	5
21. Understanding this subject is important to me	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
	1	2	3	4	5
22. When I take a test I think about how poorly I am doing	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
	1	2	3	4	5
23. When I study for a test, I try to put together the information from class and from the book	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
	1	2	3	4	5
24. When I do homework, I try to remember what the teacher said in class so I can answer the questions correctly	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
	1	2	3	4	5
25. I ask myself questions to make sure I know the material I have been studying	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

## Section 6

Please rate the following based on your behavior based in this class. Your rating should be on a 5-point scale where 1= not true of me to 5= very true of me.

\*Pintrich, R. R., & DeGroot, E. V. (1990). Motivational and self-regulated learning components of classroom academic performance, *Journal of Educational Psychology*, 82, 33-40

	1	2	3	4	5
26. It is hard for me to decide what the main ideas are in what I read	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
	1	2	3	4	5
27. When work is hard I either give up or study only the easy parts	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
	1	2	3	4	5
28. When I study I put important ideas into my own words	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
	1	2	3	4	5
29. I always try to understand what the teacher is saying even if it doesn't make sense.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
	1	2	3	4	5
30. When I study for a test I try to remember as many facts as I can	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

## Section 7

Please rate the following based on your behavior based in this class. Your rating should be on a 5-point scale where 1= not true of me to 5= very true of me.

\*Pintrich, R. R., & DeGroot, E. V. (1990). Motivational and self-regulated learning components of classroom academic performance, *Journal of Educational Psychology*, 82, 33-40

	1	2	3	4	5
31. When studying, I copy my notes over to help me remember material	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
	1	2	3	4	5
32. I work on practice exercises and answer end of chapter questions even when I don't have to	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
	1	2	3	4	5
33. Even when study materials are dull and uninteresting, I keep working until I finish	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
	1	2	3	4	5
34. When I study for a test I practice saying the important facts over and over to myself	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
	1	2	3	4	5
35. Before I begin studying I think about the things I will need to do to learn	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

### Section 8

Please rate the following based on your behavior based in this class. Your rating should be on a 5-point scale where 1= not true of me to 5= very true of me.

\*Pintrich, R. R., & DeGroot, E. V. (1990). Motivational and self-regulated learning components of classroom academic performance, *Journal of Educational Psychology*, 82, 33-40

	1	2	3	4	5
36. I use what I have learned from old homework assignments and the textbook to do new assignments	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
	1	2	3	4	5
37. I often find that I have been reading for class but don't know what it is all about.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
	1	2	3	4	5
38. I find that when the teacher is talking I think of other things and don't really listen to what is being said	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
	1	2	3	4	5
39. When I am studying a topic, I try to make everything fit together	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
	1	2	3	4	5
40. When I'm reading I stop once in a while and go over what I have read	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

### Section 9

Please rate the following based on your behavior based in this class. Your rating should be on a 5-point scale where 1= not true of me to 5= very true of me.

\*Pintrich, R. R., & DeGroot, E. V. (1990). Motivational and self-regulated learning components of classroom academic performance, *Journal of Educational Psychology*, 82, 33-40

	1	2	3	4	5
41. When I read materials for this class, I say the words over and over to myself to help me remember	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
	1	2	3	4	5
42. I outline the chapters in my book to help me study	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
	1	2	3	4	5
43. I work hard to get a good grade even when I don't like a class	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
	1	2	3	4	5
44. When reading I try to connect the things I am reading about with what I already know.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>



## Appendix C



11/6/2015

Institutional Review Board  
c/o Office of Research Compliance  
115 Ramsay Hall  
Auburn University, AL 36849

Dear IRB Members,

After reviewing the proposed study, "Differences between Dual Enrollment and Main Stream Students: A comparative analysis", presented by Mr. James Stockton, an AU graduate student, I have granted authorization for students to be recruited from the following campuses (before, during or after class):

1. Enterprise Community College (Main campus)
2. Alabama Aviation Center (Ozark Campus)

The purpose of the study is to determine the differences in Self-Directed Learning Strategies between dual enrolled and not dual enrolled students. Mr. James Stockton will conduct the following activities in the above listed campuses: Contact, Recruit and Collect Data. It is understood that this project will end no later than January 31, 2016.

To ensure that the students are protected, Mr. Stockton has agreed to provide to me a copy of any Auburn University IRB-approved, stamped consent document before he recruits participants in the above-listed Campuses. Mr. Stockton has agreed to provide a copy of his study results, in aggregate, to our College.

If the IRB has any concerns about the permission being granted by this letter, please contact me at the phone number given below.

Sincerely,

Vicky Ohlson, PhD  
Interim President  
Enterprise State Community College  
(334) 347-2623

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@EnterpriseState