Career Thoughts of Incarcerated Students

by

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Abstract

In 2018, the Bureau of Justice Statistics released the results of a nine-year longitudinal study following 412,731 inmates released in 2005, finding that 84% of these individuals were rearrested (Alper et al., 2018). This high recidivism rate shows a clear need for reentry intervention to reduce these rates. A key part of reentry should be career readiness; for this to be successful, individuals need to attain skills and education congruent to the skills needed in the labor force. Providing career assistance and interventions to those entering the workforce is understanding an individual's desire and motivation in career and education, and negative career thoughts predict job attainment and satisfaction. The purpose of this study was to examine the career thoughts of incarcerated students and determine if intersections of their identities affect their career thoughts through the use of the Career Thoughts Inventory and demographic information. The intersections examined include; re-offense, disability status, education level, and employment experience. This study investigates the career thoughts of incarcerated students at a technical college serving only incarcerated adults. This study indicates that these intersections do not have a significant difference with incarcerated students' career thoughts.

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Chapter 1: Introduction

Over the last 40 years, the United States incarceration rates have increased by 500%, equating to having 2.2 million people currently incarcerated (The Sentencing Project, 2019). This dramatic increase occurred due to the combination of the 'tough on crime' era and the 'war on drugs.' These eras set mandatory minimum sentences for drug offenses resulting in a 1,007.5% increase in the number of people serving drug-related convictions since the 1980s (The Sentencing Project, 2019). In addition to these mandatory minimum sentences, there were cutbacks on parole releases, resulting in more people serving longer terms than ever before in the United States. The National Research Council reported that half of the 222% growth in the state prison population in the twenty years between 1980 and 2010 was due to this increase in sentence length (Travis, 2014). These decades of harsh sentencing have left the United States with the world's highest incarceration rate.

Definition of Terms

The following definition of terms was developed for this study:

Career Thoughts: Defined as the outcomes of an individual's thinking about assumptions, attitudes, behaviors, beliefs, feelings, plans, and strategies related to career decision making and problem-solving (Sampson et al., 2004, p. 91).

Disability Status: Defined by the Americans with Disabilities Act (1990) as an individual with "a physical or mental impairment that substantially limits one or more major life activities, a person who has a history or record of such an impairment, or a person who is perceived by others as having such an impairment" (Civil Rights Division, 2020). Specific impairments are not listed by the Americans with Disabilities Act.

Education Level: Education level is defined as "the highest level attained" in education (Matsumura, 2019). For this study, the education levels included elementary school, middle school, high school, completed high school, and GED acquisition.

Employment: Employment is defined by Varghese et al. (2013) as legal gainful employment. This clarification decreases the need for specifying the type of employments and limits the unknown factors of illegal work concerning vocational development (Varghese, 2012).

Re-offense: Defined as "the time from the sentence date to a subsequent arrest that resulted in a conviction" by Lapham et al. (2006). The term relates to recidivism rates and indicates reentry issues in the past.

Reentry and Recidivism

These high incarceration rates lead many individuals to be released from prison without a feasible reentry and career plan to make them successful post-incarceration. Cooper et al. (2014) reported that 67.8% of all released inmates were rearrested within three years, and 76.9% were rearrested within five years, meaning over three-quarters of all people released from corrections will recidivate. More recently, Alper et al. (2018), with the Bureau of Justice Statistics, released a nine yearlong longitudinal study following 412,731 inmates released by 30 states in 2005 to track recidivism rates. Within the first year, 45% of the former inmates were rearrested, with another 24% rearrested within three years (Alper et al., 2018). In the following four to six years, another 11% were rearrested, and 4% more were rearrested in seven to nine years. These rates total to 69% of these 412,731 individuals who were rearrested within three years and 84% within nine years (Alper et al., 2018). These numbers display the need for reentry programming changes that address the causes of recidivism.

According to the National Institute of Justice (n.d.), recidivism refers to "a person's relapse into criminal behavior, often after the person receives sanctions or undergoes intervention for a previous crime" (para. 3). Recidivism research is used in sentencing, corrections, and policy intervention evaluations (National Institute of Justice [NIJ], n.d.). In a meta-analysis of 50 studies with recidivism outcomes, Davis et al. (2013) determined that recidivism was defined most often in the degree to which a formerly incarcerated individual is involved in reoffending, rearrests, reconviction, reincarceration, technical parole violation, and successful completion of parole. Recidivism is an important matter concerning other criminal justice topics such as incapacitation, specific deterrence, and rehabilitation. Of these topics, in the counseling research, most often, the focus is on rehabilitation.

According to a Bureau of Justice Statistics report, in 2016, there were 878,000 adults paroled from federal and state institutions (Kaeble & Alper, 2020). Since the Alper et al. (2018) study indicated that almost two-thirds of those released from prison were rearrested within three years, it is essential to recognize why a formerly incarcerated person might recidivate. Formerly incarcerated individuals experience an increased prevalence of homelessness, unemployment, and poverty. Among these prevalent reentry concerns, one of the most significant challenges to those previously incarcerated is reentering the labor market. Employers are often hesitant to hire individuals with a criminal history, which is a pathway to homelessness and poverty (The Urban Institute, 2008). When formerly incarcerated individuals get hired, they are often in low-skill jobs with limited advancement opportunities and receive lower wages than made before incarceration (The Urban Institute, 2008). An aspect of positively changing these common concerns could be implicated before release in the rehabilitation phase, where education and career interventions could occur while still incarcerated. Rehabilitation is defined as the "extent

to which a program is implicated in the reduction of crime by 'repairing' the individual in some way by addressing his or her needs or deficits." (NIJ, n.d.). In addressing unemployment, the needs and deficits of former incarcerated individual's education and career readiness need to be addressed. When the needs of any incarcerated population are not met through treatment or education, there is a higher risk of recidivism.

Education and Incarcerated Individuals

For reentry to be successful, individuals need to attain skills congruent to the skills needed in the labor force. Often incarcerated individuals are behind in reading, writing, and mathematics education compared to similar groups in the general population. Rampey (2016) identified that only 30% of incarcerated individuals had been offered educational opportunities while in prison. The results of the Program for the International Assessment of Adult Competencies (PIAAC), which measures the relationship between educational background, cognitive skills, use of information and communication technology, and workplace experiences and skills, exposed that two-thirds of the incarcerated population that had a high school diploma in PIAAC scored level 2 or lower in literacy (Rampey et al., 2016). This is considered below the necessary level for success in society's current workforce. One-fourth of incarcerated individuals with a high school diploma scored at levels that are considered extremely low, and 90% of those without a high school diploma also scored at level 2 or lower (Rampey et al., 2016). These scores display that most of this population did not have the education to complete basic tasks needed in everyday society, including writing a letter or calculating grocery bills. Employers are already less likely to consider hiring a formerly incarcerated individual, but lower education levels place these individuals at an even higher disadvantage for career attainment.

Most state institutions provide opportunities for incarcerated individuals to complete their General Education Development, or GED, a test that qualifies as the equivalent to a high school diploma. People who have served time in prison are more likely to have their GED than a high school diploma (Couloute, 2018a). This discrepancy can also create more difficulty in becoming gainfully employed and other difficulties formerly incarcerated individuals face regarding employment. While incarcerated, those who wanted to enroll in academic classes or programs mostly desire to learn more, focusing on improving their job prospects post-release (Rampey et al., 2016). The meta-analysis of incarcerated adult educational programs found that most of the studies resulted in lower recidivism rates among those who participated in these programs (Davis et al., 2013). There are four most common types of programming; adult basic education, high school and GED, post-secondary education, and vocational education. Each education program is intended to serve different populations of incarcerated individuals with different reentry needs and teach diverse skill sets. Davis et al. (2013) calculated the odds ratio of 88 studies that compared recidivism rates with incarcerated individuals that completed one of these four types of correctional education program with those that did not. Overall, the results proposed that participation in any of these four types of corrections education programs was associated with lower recidivism rates. The fundamental difficulty in providing educational programs to help these individuals attain necessary reentry skills and employment to incarcerated groups is funding (Steurer, 2020). Most of the current funding is fragmented across the country due to various funding levels from the county, state, and federal budgets (Steurer, 2020).

Career Attainment of Incarcerated Individuals

In the current labor market, a GED or high school diplomas have diminishing value, which, according to Couloute (2018a), is the highest education greater than 50% of formerly

incarcerated individuals have. The diminishing value of these credentials causes a severe concern regarding employment for these individuals upon reentry. Even worse, people that have been incarcerated are twice likely to have no high school diploma or equivalency when compared to the general population (Coulette, 2018a). This results in an even larger employment barrier for those incarcerated due to their lower educational achievement. Despite this, PIAAC did show that 65% of these incarcerated individuals had worked full or part-time in the year before their current sentence (Rampey et al., 2016). Specifically, in this data, 49% of these respondents were employed full-time before incarceration. In another study, Curtis et al. (2013) reported that 86% of those surveyed reported their most recent job before incarceration qualified full-time.

One way incarcerated individuals can attain career skills is through employment while incarcerated in a prison job. At the time of the PIAAC assessment, 61% of the incarcerated population currently held a prison job (Rampey et al., 2016). This percentage increased when stratified by age; those between the ages of 55 and 65 held prison jobs at a rate of 70% (Rampey et al., 2016). While the prison jobs are an excellent method to increase skill and responsibility, both important to holding a job upon reentry, these jobs are still most often held by those with higher education levels than other inmates. PIAAC assessment indicated that 47% of those without a high school credential held a prison job, compared to the 67% of those with a high school credential holding employment in prison. Of those assessed with an Associate degree, 73% of them hold a prison job (Rampey et al., 2016). Those with a prison job had higher literacy skills than the peers who did not have a job in prison. Most incarcerated individuals who hold a prison job disclosed that they never have to use numeracy or literacy skills while carrying out their prison employment responsibilities.

Incarcerated Individual's Disability Status Effect on Educational and Career Attainment

It is essential to understand the influence disability status has on both academic and career matriculations. In 2017, the National Center for Education Statistics released high school graduation rates for individuals with and without disabilities for the 2015-2016 academic year throughout the United States. Individuals with disabilities demonstrated a 65.5% graduation rate, which increased by 0.9% from the prior academic year (National Center for Education Statistics, 2017). However, this same year the national graduation rate for individuals without disabilities reached 84.1%, a record high (National Center for Education Statistics, 2017). High school and college degrees can serve an important role for individuals with disabilities in job acquisition. Despite this, the national employment rate for full-time and part-time employment was 19.3% for individuals with disabilities in 2019, compared to 66.3% for those without disabilities (Bureau of Labor Statistics, 2020). For both categories, this decreased from the year prior. However, individuals with disabilities faced a more significant decrease of 7.3% compared to only 3.5%.

Types of disabilities that commonly influence employment and education in order of most common among incarcerated adults to least according to the Bureau of Justice Statistics, are; cognitive disability, ambulatory disability, independent living disability, vision disability, hearing disability, and self-care disability (Bronson et al., 2015). This range of disabilities is also common in the general population. Sears et al. (2014) found that college students with a disability experienced significantly higher external conflict levels, making academic and career decisions thank those without disabilities. Barriers also exist within work environments to impede success, and disability can prevent individuals from performing specific work tasks (Derzis et al., 2013). It is crucial for vocational interventions to meet those with disabilities'

needs, mental health concerns, even though many incarcerated adults with a disability may never receive the services they need (McWhirter, 2013).

Mental health disorders were included in disability status in some of the studies reviewed. People who become incarcerated already have elevated rates of substance use disorders and are more likely to engage in smoking, drinking, and illicit drug use while incarcerated. Specifically, women with a criminal record are more likely to be drug involved than their male counterparts, which can indicate future recidivism, relapse, overdose, suicide, or other mental illness (Harzke & Pruitt, 2018; Rodda & Beichner, 2017). Despite awareness of how widespread substance use is within the incarcerated population and the risks facing those with substance use history, there is often inadequate action to help reduce recidivism rates, mental health illness, overdose, and continued substance use. This gap also shows the number of incarcerated individuals going untreated and emphasizes the harm done by not providing treatment. Unemployment is a major and chronic problem among people with substance abuse disorder. Laudet (2012) found that of their 311 individual samples with history of a substance use disorder, less than half were employed full-time or part-time. This study also identified how other aspects of an individual's identity, including age, race, and education level, correlated with lower employment levels. However, these results also heightened risk of recidivism when someone with an untreated substance use disorder is released since this disorder may affect employment attainment.

People will frequently have two or more co-occurring medical or mental health concerns, known as comorbid disorders or conditions. Comorbidities increase recidivism risk; accurate identification and evaluation of the risk of women with a history of criminalization are of the utmost importance in developing case management plans to reduce recidivism (Van Voorhis et al., 2010). Past or current victimization can contribute to drug or alcohol abuse, depression,

posttraumatic stress disorder, and criminal activity, which creates a continuous recidivism cycle. Continued and untreated substance use while incarcerated increases the risk of recidivating. Risk is heightened when the person also has a history of trauma and relational abuse and use substances in place of healthy coping mechanisms (Asberg & Renk, 2012). Substances continuing to be accessible while incarcerated paired with limited treatment options continue to increase the risk. Aftercare programs include assisting the clients in seeking employment, transportation, healthcare, and living arrangements that can assist in reentry success (Wells & Bright, 2005). Previously there had been significant gaps in these areas, which increased the prospect of recidivism. Connecting individuals to community-based programs are one way to increase their success rate, as receiving aftercare was a predictor of success and resulted in a lower recidivism rate (Johnson et al., 2015).

The discussion of disability concerning incarcerated individuals' career and educational attainment is important because a 2016 study indicated the 40% of jail inmates reported having at least one disability, while an additional 16% said they had multiple disabilities (Trotter & Noonan, 2016). Overall, the incarcerated population is more likely to have a medical history, including a chronic medical condition or disease. Bronson et al. (2015) stated that two in 10 incarcerated adults reported having a cognitive disability, which was the most reported type of disability in this study at 31%. This is almost triple the percentage of individuals with disabilities in the general population at 11%. In this same group, the number of individuals with disabilities increased another 13% when specifying by age to be only inmates older than 50 years old compared to decreasing by 4% when only including those between the ages of 18-24 (Bronson et al., 2015). Inmates with a disability were also more likely to report a comorbid disorder than

those without a disability. These statistics indicate the need to address the career readiness of incarcerated adults with disabilities.

Career Thoughts

Negative and dysfunctional career thinking makes career choice and decision-making much more difficult. Liu et al. (2014) used a measure of career maturity as a similar definition to the definition of career thoughts identified in this study. The study found the career maturity was associated with job attainment, where the greater the maturity and less dysfunctional career thoughts resulted in more positive career attainment outcomes and a better chance of obtaining and maintaining employment (Liu et al., 2014). This study also indicated that those with greater maturity and career thoughts had a better. This study also emphasized the importance of emotional intelligence to career development. Student decision-making is influenced by various personal and environmental factors, including their self-beliefs and their career motivation. Individuals may avoid specific career preparation tasks due to their own beliefs on performing this task (Fenning et al., 2013). This could lead to what Sampson et al. (1996, p. 2) identified as decision-making confusion due to the inability to complete tasks for the decision-making process for career choices. The results of the Fenning et al. (2013) study indicated that those with higher self-efficacy, which leads to lower decision-making confusion and less dysfunctional career thinking, consider more career options, and are better prepared for those careers. This preparedness leads to greater career attainment. Often the biases and distorted career thoughts are unnoticed, and the environments of individuals gaining career training should be taken into account, as it also effects career thinking.

The most important and fundamental challenge to providing career assistance and interventions to those entering the workforce is understanding an individual's desire and

motivation in career and education related to employment. Bertoch et al. (2014) focused on the goal instability related to career thoughts, decisions, and performance in career courses. Goal stability is predicated on the idea that people need to have a clear vision of their goals to be purposeful and productive. The foundation of the Bertoch et al. (2014) study was the belief that goal instability is associated with readiness for career exploration. Stress can influence career readiness and decisions. When individuals are in stressful situations or environments, uncertainty and indecision will often occur, which will result in a level of either satisfaction or dissatisfaction with their choice (Bertoch et al., 2014). Education level appears to have some influence on career thoughts. Derzis et al. (2017) identified that the individuals who had only grade school or some grade school as their highest education level had the highest instances of external conflict. Negative career thoughts can predict other job acquisition and satisfaction issues. Those with negative career thoughts will often have an increased avoidant behavior from their job or career attainment and have lower satisfaction when employed (Lee et al., 2016). Other behaviors may also present themselves in individuals with negative career thoughts. This could be through not completing assignments, mental health issues arising from depression or anxiety, and verbally expressing negative thoughts (Musgrove et al., 2012), determining the career thoughts of incarcerated adults in educational programming before reentry could predict success levels both in their programs before release and employment post-release. This determination would also allow intervention before reentry for those with negative career thoughts to help increase the likelihood of success in their career.

In order to make career decisions and explore career options, the individual must be able to engage in decision-making and problem-solving processes. The model developed by Bullock-Yowell et al. (2012) informed career counselors that negative career thoughts explain a portion

of exploratory behavior and problem-solving self-efficacy. There is a relationship between negative career thoughts and exploratory behavior, indicating that it is important for career counselors to intervene early in dysfunctional career thinking to be more successful in initiating problem-solving behaviors in the future (Bullock-Yowell et al., 2012). When Thrift et al. (2012) initiated a similar model with a diverse group of college students and conducted a pre- and post-CTI assessment to measure the effectiveness of the career intervention, there was a significant effect on the overall score and two of the assessment's construct scales, both the decision-making confusion and commitment anxiety scales. The post-tests also revealed a significant reduction in negative career thoughts on the decision-making confusion scale and commitment anxiety scale. Career thoughts and decision-making abilities impact on career attainment; therefore dysfunctional and negative career thoughts must be addressed in students, especially incarcerated students, before entering the field.

Problem Statement

As rates of incarceration and recidivism increase, there needs to be a way to address the problems that afflict the formerly incarcerated population. Research indicates the increased prevalence of homelessness, unemployment, and poverty among this population. These issues are often due to a lack of career development and job attainment, which results in a clear need for successful employment to reduce recidivism. The Career Thoughts Inventory can help identify negative career thoughts for intervention and better career development before reentry. This study aims to assess what aspects of re-offense, disability status, education level, and employment experience affect the career thoughts of incarcerated individuals currently enrolled in a technical college.

Study Significance and Purpose

In the past, incarcerated individuals' vocational needs have not received much attention in counseling research. The incarcerated population is a diverse population consisting of people with disabilities, people with mental illness, various levels of education and training, and members of ethnic minority groups who are or were incarcerated. It is essential to develop vocational interventions that focus on and attend to a diverse population of individuals. The group identified for this study is especially unique because the educational programs are at a technical college that serves solely incarcerated adults. This technical college offers 19 different technical degree and certificate programs. This study progresses the research that has already been done in this state with various prison populations.

Overall, extensive research has focused on the incarcerated population in the last two decades. Now is time to thoroughly examine incarcerated individuals' career thoughts in educational and career programming prior to release from society to decrease the risk of recidivism, as employment is a primary indicator for successful reentry. Employment is an important indicator because gainful employment decreases stressors related to housing security, poverty, and health concerns. Homelessness formerly incarcerated people are about ten times more likely to be homeless than the general population (Couloute, 2018b). The research focused on rehabilitation and education of incarcerated groups to reduce recidivism has increased over the last 20 years. However, little research focusing on the unique group of incarcerated students and career intervention has been produced. The research is unique because the data is only from incarcerated students at a technical college rather than a general incarcerated population. This will provide a more in-depth understanding of how vocational programming and intervention can influence the career thoughts of incarcerated individuals. This information will inform the field

for those that work with incarcerated individuals in various capacities. This will provide better information in correctional departments across the country on how vocational programming could positively affect career thoughts of the incarcerated individuals. Within the counseling field, working with incarcerated individuals is a narrow specialty. Despite being a narrow specialty, this will inform counselors that work in reentry about how various aspects of someone's identity may influence their career outlook and reentry needs. The purpose of this study is to understand the relationship of incarcerated student's life experiences or identity with their Career Thought Inventory scores to determine if these aspects of their lives influence the results of the assessment.

Chapter 2: Methods

The study examines the career thoughts of incarcerated students with five research questions comparing their Career Thought Inventory score and their life experiences or identity. The following section outlines the research questions and methodology to answer these questions.

Research Questions

Through the use of a questionnaire and formal assessment measures, the study investigates the following research questions:

RQ1: Do incarcerated individuals currently enrolled in a technical college have positive career thoughts?

RQ2: Is there a significant difference between re-offense and career thoughts in incarcerated individuals currently enrolled in a technical college?

RQ2.1: Is there a significant difference between re-offense and decision-making confusion in incarcerated individuals currently enrolled in a technical college?

RQ2.2: Is there a significant difference between re-offense and commitment anxiety in incarcerated individuals currently enrolled in a technical college?

RQ2.3: Is there a significant difference between re-offense and external conflict in incarcerated individuals currently enrolled in a technical college?

RQ3: Is there a significant difference between disability status and career thoughts in incarcerated individuals currently enrolled in a technical college?

RQ3.1: Is there a significant difference between disability status and decision-making confusion in incarcerated individuals currently enrolled in a technical college?

RQ3.2: Is there a significant difference between disability status and commitment anxiety in incarcerated individuals currently enrolled in a technical college?

RQ3.3: Is there a significant difference between disability status and external conflict in incarcerated individuals currently enrolled in a technical college?

RQ4: Is there a significant difference between education level and career thoughts in incarcerated individuals currently enrolled in a technical college?

RQ4.1: Is there a significant difference between education level and decision-making confusion in incarcerated individuals currently enrolled in a technical college?

RQ4.2: Is there a significant difference between education level and commitment anxiety in incarcerated individuals currently enrolled in a technical college?

RQ4.3: Is there a significant difference between education level and external conflict in incarcerated individuals currently enrolled in a technical college?

RQ5: Is there a significant difference between previous employment experience and career thoughts in incarcerated individuals currently enrolled in a technical college?

RQ5.1: Is there a significant difference between previous employment experience and decision-making confusion in incarcerated individuals currently enrolled in a technical college?

RQ5.2: Is there a significant difference between previous employment experience and commitment anxiety in incarcerated individuals currently enrolled in a technical college?

RQ5.3: Is there a significant difference between previous employment experience and external conflict in incarcerated individuals currently enrolled in a technical college?

Statement of Hypotheses

The following null and alternative hypotheses were developed for this study:

$H_{ø}1$: There is no significant positive thinking for incarcerated individuals currently enrolled in a technical college.

$H_{a}1$: There is a significant positive thinking for incarcerated individuals currently enrolled in a technical college.

$H_{ø}2$: There is no significant mean difference between re-offense and career thoughts in incarcerated individuals currently enrolled in a technical college.

$H_{a}2$: There is a significant mean difference between re-offense and career thoughts in incarcerated individuals currently enrolled in a technical college.

$H_{ø}2.1$: There is no significant mean difference between re-offense and decision-making confusion in incarcerated individuals currently enrolled in a technical college.

$H_{a}2.1$: There is a significant mean difference between re-offense and decision-making confusion in incarcerated individuals currently enrolled in a technical college.

$H_{ø}2.2$: There is no significant mean difference between re-offense and commitment anxiety in incarcerated individuals currently enrolled in a technical college.

H_a2.2: There is a significant mean difference between re-offense and commitment anxiety in incarcerated individuals currently enrolled in a technical college.

$H_ø$2.3: There is no significant mean difference between re-offense and external conflict in incarcerated individuals currently enrolled in a technical college.

H_a2.3: There is a significant mean difference between re-offense and external conflict in incarcerated individuals currently enrolled in a technical college.

$H_ø$3: There is no significant mean difference between disability status and career thoughts in incarcerated individuals currently enrolled in a technical college.

H_a3: There is a significant mean difference between disability status and career thoughts in incarcerated individuals currently enrolled in a technical college.

$H_ø$3.1: There is no significant mean difference between disability status and decision-making confusion in incarcerated individuals currently enrolled in a technical college.

H_a3.1: There is a significant mean difference between disability status and decision-making confusion in incarcerated individuals currently enrolled in a technical college.

$H_ø$3.2: There is no significant mean difference between disability status and commitment anxiety in incarcerated individuals currently enrolled in a technical college.

H_a3.2: There is a significant mean difference between disability status and commitment anxiety in incarcerated individuals currently enrolled in a technical college.

$H_{ø}$3.3: There is no significant mean difference between disability status and external conflict in incarcerated individuals currently enrolled in a technical college. H_a3.3: There is a significant mean difference between disability status and external conflict in incarcerated individuals currently enrolled in a technical college.

$H_{ø}$4: There is no significant mean difference between education level and career thoughts in incarcerated individuals currently enrolled in a technical college.

H_a4: There is a significant mean difference between education level and career thoughts in incarcerated individuals currently enrolled in a technical college.

$H_{ø}$4.1: There is no significant mean difference between education level and decision-making confusion in incarcerated individuals currently enrolled in a technical college.

H_a4.1: There is a significant mean difference between education level and decision-making confusion in incarcerated individuals currently enrolled in a technical college.

$H_{ø}$4.2: There is no significant mean difference between education level and commitment anxiety in incarcerated individuals currently enrolled in a technical college.

H_a4.2: There is a significant mean difference between education level and commitment anxiety in incarcerated individuals currently enrolled in a technical college.

$H_{ø}$4.3: There is no significant mean difference between education level and external conflict in incarcerated individuals currently enrolled in a technical college.

H_{a}4.3: There is a significant mean difference between education level and external conflict in incarcerated individuals currently enrolled in a technical college.

$H_{ø}$5: There is no significant mean difference between previous employment experience and career thoughts in incarcerated individuals currently enrolled in a technical college.

H_{a}5: There is a significant mean difference between previous employment experience and career thoughts in incarcerated individuals currently enrolled in a technical college.

$H_{ø}$5.1: There is no significant mean difference between previous employment experience and decision-making confusion in incarcerated individuals currently enrolled in a technical college.

H_{a}5.1: There is a significant mean difference between previous employment experience and decision-making confusion in incarcerated individuals currently enrolled in a technical college.

$H_{ø}$5.2: There is no significant mean difference between previous employment experience and commitment anxiety in incarcerated individuals currently enrolled in a technical college.

H_{a}5.2: There is a significant mean difference between previous employment experience and commitment anxiety in incarcerated individuals currently enrolled in a technical college.

$H_{ø}5.3$: There is no significant mean difference between previous employment experience and external conflict in incarcerated individuals currently enrolled in a technical college.

$H_{a}5.3$: There is a significant mean difference between previous employment experience and external conflict in incarcerated individuals currently enrolled in a technical college.

Participants

The participants of this study were currently incarcerated individuals who are currently enrolled at a technical college in Alabama. This technical college offers 19 programs of study across six campuses. Within these programs, students gain life skills training and job placement assistance. The population included participants from men's and women's correctional facilities at either of the three campuses for this technical college. Researchers met with all 121 student inmates before completing the assessments. In this meeting, the researchers explained that the purpose of collecting data was to understand the career development and job interests of students currently enrolled.

According to the Alabama Department of Corrections 2019 yearly report, there were 21,680 individuals in custody at the Alabama Department of Corrections facilities'. Of this population, 50.6% of the population reported having a high school, GED, or some college education, with the custody population's average education level being 10th grade (Alabama Department of Corrections, 2019). The recidivism rate of 2019 was 27.95%, which was down 3.95% from 2013, according to the 2019 report. Of the admissions into Alabama Department of Corrections facilities, 79.4% of inmates' sentences were less than ten years in length (Alabama Department of Corrections, 2019).

Participants were identified using cluster sampling. Cluster sampling exists in this study because each campus is a homogeneous group from male or female prison facilities. However, the technical college separates these groups into clusters by technical program the individuals are enrolled in. Stratification occurred due to individuals' characteristics, such as sex, incarceration status, and other demographics. This was done in conjunction with the college due to enrollment in vocational programs, and each cluster is representative of one of the college's campus. Cluster sampling works within prison settings well because it utilizes the naturally occurring, mixed group of elements of the population using dorm sections and works well in this situation due to assessments taking place at each of the campuses. In this sampling method, each participant appeared in only one cluster at one time.

Instruments

The research questions aim to answer if the dependent variables of the Career Thoughts Inventory Total score, decision-making confusion construct score, commitment anxiety construct score, and external conflict construct score are influenced by the independent variables, the independent variables assessed in this study are repeat offender status, disability status, education level, and previous employment experience. Data collection was done through the following instruments:

Demographic Questionnaire

This questionnaire (Appendix C) measures the demographics of the population participating in the study. These demographics include age, gender, race, disability status, the highest level of education completed, employment history, campus, and if they are a repeat offender.

Career Thoughts Inventory

This scale was developed to screen an individual's current level of negative thinking and the nature of their dysfunctional thinking related to career (Sampson et al., 1996). This assessment is based on the cognitive information processing theory to career development. Results of this assessment can be used to better address the needs of individuals relating to career planning and interventions. The Career Thoughts Inventory has an internal consistency ranging from .93 to .97, meeting standards for reliability and validity scales (Sampson et al., 1996). This instrument is meant to assess negative career thoughts that interfere with effective career decision-making (Sampson et al., 1996). The inventory is a 48-question that utilizes a 4-point Likert scale of strongly disagree, disagree, agree, and strongly agree. The higher the score, the greater the dysfunctional career thinking (Sampson et al., 1996). In order to conduct data analysis, the college aged norm-group will be compared with the data sample. This profile for college students normed group indicate that the following scores are the 50^{th} percentile; 46-48 CTI total, 11 decision-making confusion, 13 for commitment anxiety, and 3-4 for external conflict (Sampson et al., 1996). This assessment has three construct scales; decision-making confusion, commitment anxiety, and external conflict. The decision-making confusion construct consists of 14 of the 48 items, and this scale reflects an inability to start or continue decision-making due to disabling emotions or not understanding the process of making decisions (Sampson et al., 1996). The commitment anxiety construct consists of 10 items from the assessment. This construct reflects the lack of ability to commit to a career choice with generalized anxiety regarding the outcome of the decision (Sampson et al., 1996). The final construct, external conflict, is 5 of the 48 items from the assessment. This construct reflects the inability to balance one’s self-perceptions with input from significant others, which creates a

reluctance to take responsibility for making a career decision (Sampson et al., 1996). The Career Thought Inventory can be found in Appendix D.

Procedures

This study used pre-existing data. Researchers met with potential participants in 2019 to explain the purpose of the data collection and present job interests and career development for the enrolled incarcerated students. Auburn University's Institutional Review Board completed a full board review before this data collection in 2018; this current study was determined to be exempt. A letter from the IRB is in Appendix A at the end of this document.

Participants were then consented and given the option to complete the Career Thoughts Inventory and demographic questions. The signed consent forms were separated from the assessment to deidentify the participant. Each assessment was given a code between the numbers 1-121, with a letter code of either a W, DM, or FM at the end, depending on which campus location the data was collected. Each participant was provided with their results, even if they opted out of the study data set.

There was complete transparency between the investigator and the participants in order to limit coercion. In order to control for reading deficits, the assessments were read aloud to the groups. The assessments were collected and kept in the Auburn University researchers' care in a locked office until the data was transferred via an electronic format through a password-protected device and stored on a secure content management platform, approved by the IRB.

Data Analysis

The data has been compiled into the IBM SPSS Statistics computer program for data analyses. This data is already deidentified, and the researcher does not have access to identifying information to match the participant. Participants have been coded with a number 1-121 with

letters following. The letter "W" following the participant number means this data was collected at the women's campus, "DM" indicates collection at one of the male campus, and "FM" indicates collection at the other male campuses.

Descriptive statistics were used to analyze the demographic information about the participants. The types of descriptive statistics used include; a percentage measure of frequency for each response, the mean measure of central tendency of scores in total CTI and the three constructs, and standard deviation measure of the variation of the scores. In order to measure the results of the survey responses and answer the research questions, a one-way analysis of variance (ANOVA). A one-way ANOVA is used to assess the differences across groups based on their means (Ross & Shannon, 2011). A one-way ANOVA was used to examine the differences in career thoughts with the participant's group affiliation in response to questions regarding disability status, employment, education, and re-offense.

Summary

This chapter comprises the research study methodology, including the problem statement, research questions, participant information, instruments, procedures, and data analysis. The participants in this study are a vulnerable population; therefore, care was taken to understand and prevent the risk of coercion and other issues in the study of the incarcerated population when the data was collected.

The instruments used include brief demographic questions and the Career Thoughts Inventory. Data analysis will include descriptive statistics and inferential statistics using SPSS. Descriptive statistics were used for the demographic information, and a one-way ANOVA was used to assess the means across the data points. This research was determined to be exempt by Auburn University’s Institutional Review Board; a letter from the board is in Appendix A.

Chapter 3: Results

The purpose of this study is to examine incarcerated individuals' career thoughts in educational and career programming prior to release back into society. This information could be valuable to decrease the risk of recidivism. The following section illustrates the results from the tests run in IBM SPSS Statistics.

Demographic Data

The participants of this study were enrolled at a technical college in Alabama that serves solely incarcerated adults. The participant population included 121 student inmates from three campuses for the same technical college; one campus serves inmates from women's state correctional facilities. The other two campuses serve men's state correctional facilities. Of the total 121 participants, their ages fell between 18 to 60 years old, with a mean age of 36.34 years. The majority of the sample fell between 36-44 years old, with 39 participants or 32.2% of the sample. Ages 27-35 were the second largest group at 29.8%, with 36 participants. 17.4% of the sample was between 18-36 years old, equating to 21 participants. The final two age groups were 45-53 years old and 54+. In the 45-53 age group had 16 participants or 13.2% of the sample. The 54+ age group included 7.4% of the sample, or 9 participants. The sample was split between three identified gender responses: Female, Male, and Transgender. Majority of the sample identifies as male at 76.9% or 93 participants. 27 participants in the sample, or 22.3% of the sample identifies as female. One participant in the sample identifies as transgender or 0.8%.

The participant's race in this sample is split into five categories; African American/Black, Caucasian/white, Hispanic/Latino, two or more, and other. Of the total 121 participants, majority with 59 or 48.8% of the sample, selected their race as Caucasian/white in the demographic questionnaire. The second-largest race group in the sample was African American/Black, with

43.8% or 53 participants. The last two categories made up 7.5% of the sample total with, four participants (3.3%) selecting other, three participants (2.5%) selecting two or more, and two participants (1.7%) selecting Hispanic/Latino.

The participants were also asked if they were repeat offenders to gather the sample's recidivism rate. Of the 121-participant sample, 63 or 52.1% of the sample replied yes that they were a repeat offender, while 58 participants or 47.9% of the sample replied no. This provides a relatively even split among the two groups.

Disability status, education level, and previous employment experiences were asked of the group; one participant declined to respond to each of these questions, resulting in a 120-participant sample for this group of questions. The overwhelming majority of the sample indicated they did not have a disability, with 96 participants or 79.3% of the sample. The remaining 24 participants, or 19.8% indicated they did have a disability. In the category of previous employment, 106 participants, or 87.6%, indicated they did have full-time employment experience prior to incarceration, leaving only 14 participants or 11.6% without experience.

Lastly, the education category comprises five categories; Elementary school, Middle school, high school, completed high school, and GED. The 120 respondents indicated their highest level of education completed. The majority of respondents indicated that GED was the highest level of education they had completed, with 42.1% or 51 participants. The following two largest categories comprise 36 participants, 29.8% completed high school, and 24 participants or 19.8% completed some high school. Only 8 participants or 6.6% of the sample completed middle school, and 1 participant or 0.8% completed elementary school. Table 1 illustrates the demographic characterization and data described in this section.

Table 1:
Demographics of Participants

	Characteristics	N	%	Valid %
Age	18 - 26	21	17.4	17.4
	27 - 35	36	29.8	29.8
	36 - 44	39	32.2	32.2
	45 - 53	16	13.2	13.2
	54+	9	7.4	7.4
Gender	Female	27	22.3	22.3
	Male	93	76.9	76.9
	Transgender	1	.8	.8
Race	African American/Black	53	43.8	43.8
	Caucasian/white	59	48.8	48.8
	Hispanic/Latino	2	1.7	1.7
	Two or more	3	2.5	2.5
	Other	4	3.3	3.3
Repeat Offender	Yes	63	52.1	52.1
	No	58	47.9	47.9
Disability	Yes	24	19.8	20.0
	No	96	79.3	80.0
	Missing	1	.8	
Education Completed	Elementary	1	.8	.8
	Middle school	8	6.6	6.7
	High school	24	19.8	20.0
	Completed high school	36	29.8	30.0
	GED	51	42.1	42.5
	Missing	1	.8	
Previously Employed	Yes	106	87.6	88.3
	No	14	11.6	11.7
	Missing	1	.8	

Statistical Analysis

Research Question 1

The first research question aimed to determine if incarcerated individuals currently enrolled in a technical college have positive career thoughts. This was determined using descriptive statistics to compare the data in the study to the college normative scores on the Career Thoughts Inventory (CTI). The CTI total mean for incarcerated students is 41.42, which is 5.59 less than the mean of the college student normative sample. While the mean of the total score is lower than the normative sample, each of the construct scales was higher in the incarcerated student sample. The college student sample for the decision-making confusion construct mean was 10.72, but it was 11.55 for this study's incarcerated student sample. The college student normative sample for commitment anxiety had a mean score of 12.92, compared to 13.64 for the incarcerated student sample. Lastly, the mean score for external conflict for the college student normative sample was 3.32, compared to the incarcerated students sample mean of 3.88. Despite these values being larger or smaller means in each group, none of them are significantly different. These scores across groups are displayed in Table 3. Table 2 displays the minimum and maximum scores of the entire incarcerated student sample, showing a significant difference between the minimum score and maximum.

Table 2:
Minimum and Maximum Sample Scores

	Scale	Minimum	Maximum
Incarcerated Students	CTI Total (48 items)	2	90
N=121	DMC (14 items)	2	28
	CA (10 items)	4	27
	EC (5 items)	0	9

Table 3:
CTI Descriptive Statistics Across Groups

	Scale	Mean	Std. Dev.	SEM
College Students	CTI Total (48 items)	47.01	20.89	.86
N=595	DMC (14 items)	10.72	7.39	.30
	CA (10 items)	12.92	5.36	.22
	EC (5 items)	3.32	2.15	.09
Incarcerated Students	CTI Total (48 items)	41.42	19.74	1.80
N=121	DMC (14 items)	11.55	6.10	.55
	CA (10 items)	13.64	5.70	.52
	EC (5 items)	3.88	2.60	.24

Research Question 2

The second research question asked if there a significant difference between re-offense and career thoughts in incarcerated individuals currently enrolled in a technical college. The sub-questions investigated if there was a significant difference in each of the CTI construct scales; decision-making confusion, commitment anxiety, and external conflict. To establish a measure to record re-offense, the independent variable, a demographic questionnaire, asked if the participant was a repeat offender or not. Descriptive statistics calculated the mean, standard deviation, and frequency of the sample. The sample consisted of 121 respondents; 63 of the participants were repeated offenders. The CTI total mean score of re-offenders is 40.90. The remaining 58 participants do not have a prior offense; their CTI total mean score is 41.98.

To measure the results of the survey responses and answer the research questions, a one-way ANOVA was conducted to compare the CTI overall score, the dependent variable, against if the participant reported re-offense. This test yielded $F(1,119) = 0.089$, $p = 0.77$ which is approaching significance but not a significant result since $p > .05$. Post-hoc tests could not be performed because there were less than three groups since the question was only a yes or no

response. The results of the one-way ANOVA are in Table 4; the descriptive statistics follow in Table 5. The results of this one-way ANOVA supported the null hypothesis that there is no significant difference between re-offense and career thoughts of incarcerated individuals.

Table 4:
Results of RQ 2 one-way ANOVA

Dependent Variable: CTI Total

Repeat offender	Mean	Std. Deviation	N
Yes	40.90	19.636	63
No	41.98	20.002	58
Total	41.42	19.737	121

Table 5:
Descriptive Statistics of RQ 2

Dependent Variable: CTI Total

Source	Type III Sum of Squares	df	Mean Square	F	Sig.	Partial Eta Squared
Corrected Model	35.093[a]	1	35.093	.089	.765	.001
Intercept	207472.944	1	207472.944	528.561	.000	.816
Repeat Offender	35.093	1	35.093	.089	.765	.001
Error	46710.411	119	392.524			
Total	254350.000	121				
Corrected Total	46745.504	120				

a. R Squared = .001 (Adjusted R Squared = -.008)

Research Question 2.1.

The first sub-question in research question two investigates if there is a significant difference in the decision-making confusion CTI construct scale for repeat offender status. The mean, standard deviation, and frequency were determined using descriptive statistics. The mean score of repeat offenders is 11.49, and the mean score of non-repeat offenders is 11.60. This difference in these means is minimal at 0.11.

A one-way ANOVA was conducted to compare the CTI decision-making confusion construct scale against if the participant reported a prior offense. This test yielded F (1,119) = 0.01, p = 0.921, which is not significant, meaning the null hypothesis is accepted. The null hypothesis stated there is no significant difference between re-offense and decision-making confusion in incarcerated individuals currently enrolled in a technical college. The results of the one-way ANOVA and descriptive statistics are in Tables 6 and 7, respectively.

Table 6:
Results of RQ 2.1 one-way ANOVA

Dependent Variable: DMC score

Source	Type III Sum of Squares	df	Mean Square	F	Sig.	Partial Eta Squared
Corrected Model	.375[a]	1	.375	.010	.921	.000
Intercept	16107.879	1	16107.879	429.435	.000	.783
Repeat Offender	.375	1	.375	.010	.921	.000
Error	4463.625	119	37.509			
Total	20593.000	121				
Corrected Total	4464.000	120				

a. R Squared = .000 (Adjusted R Squared = -.008)

Table 7:
Descriptive Statistics of RQ 2.1

Dependent Variable: DMC score

Repeat offender	Mean	Std. Deviation	N
Yes	11.4921	5.92391	63
No	11.6034	6.33547	58
Total	11.5455	6.09918	121

Research Question 2.2.

The second sub-question in research question two investigates if there is a significant difference in the commitment anxiety CTI construct scale and repeat offender status. In this sample, the independent variable is identified as repeat offender status, and the dependent is the commitment anxiety construct score. Descriptive statistics were performed to determine the mean, standard deviation, and frequency resulting in the mean score of repeat offenders is 13.4127 and 13.4138 of non-repeat offenders. This difference in these means is very minimal at 0.0011.

A one-way ANOVA was conducted to compare the commitment anxiety construct scale against if the participant reported re-offense. This test yielded F (1,119) = 0.000, $p = 0.999$. This is not a significant result, and the null hypothesis of no significant difference between the commitment anxiety CTI construct scale and repeat offender status is accepted. The results of the one-way ANOVA are in Table 8, and the descriptive statistics are in Table 9.

Table 8:
Results of RQ 2.2 one-way ANOVA

Dependent Variable: CA score

Source	Type III Sum of Squares	df	Mean Square	F	Sig.	Partial Eta Squared
Corrected Model	3.619E-5[a]	1	3.619E-5[a]	.000	.999	.000
Intercept	22432.494	1	21732.562	822.225	.000	.874
Repeat Offender	5.518	1	3.619E-5[a]	.000	.999	.000
Error	3145.339	119	26.431			
Total	24915.000	121				
Corrected Total	3145.339	120				

a. R Squared = .000 (Adjusted R Squared = -.008)

Table 9:
Descriptive Statistics of RQ 2.2

Dependent Variable: CA score

Repeat offender	Mean	Std. Deviation	N
Yes	13.4127	5.33895	63
No	13.4138	4.91698	58
Total	13.4132	5.11968	121

Research Question 2.3.

The third sub-question in research question two investigates if there is a significant difference in the external conflict CTI construct scale. Descriptive statistics were performed to determine the mean, standard deviation, and frequency. The mean score of repeat offenders is 3.92 and 3.82 for non-repeat offenders. This difference in these means is minimal at 0.10.

A one-way ANOVA was conducted to compare the external conflict construct scale against whether the participant reported re-offense. This test yielded a non-significant result of $F(1,119) = 0.038$, $p = 0.845$. The null hypothesis of no significant difference between the external conflict CTI construct scale and repeat offender status is accepted. Table 10 displays the results of the one-way ANOVA, and Table 11 shows the descriptive statistics.

Table 10:
Results of RQ 2.3 one-way ANOVA

Dependent Variable: EC score

Source	Type III Sum of Squares	df	Mean Square	F	Sig.	Partial Eta Squared
Corrected Model	.261[a]	1	.261	.038	.845	.000
Intercept	1812.956	1	1812.956	265.404	.000	.690
Repeat Offender	.261	1	.261	.038	.845	.000
Error	812.879	119	6.831			
Total	2631.000	121				
Corrected Total	813.140	120				

a. R Squared = .000 (Adjusted R Squared = -.008)

Table 11:
Descriptive Statistics of RQ 2.3

Dependent Variable: EC score

Repeat offender	Mean	Std. Deviation	N
Yes	3.9206	2.36440	63
No	3.8276	2.86012	58
Total	3.8760	2.60311	121

Research Question 3

Research question three aimed to answer if there is a significant mean difference between disability status and career thoughts in incarcerated individuals currently enrolled in a technical college. Descriptive statistics were used to identify the mean, standard deviation, and frequency. The sample consisted of 120 respondents; 24 participants reported having a disability, and 96 did not report a disability. The mean CTI score of those with a disability is 45.21, and those without a disability are 40.55.

A one-way ANOVA was performed to evaluate the relationship between these two variables. The participants either responded yes or no to whether they have a disability, which

results in two levels of the independent variable of disability status. The dependent variable is their CTI total score. The ANOVA was not significant because F (1, 118) = 1.06, p = 0.305. Since $p > .05$, the null hypothesis is supported with no significant difference between disability and career thoughts of incarcerated students. Post-hoc tests could not be performed for this question because there were less than three groups, as the question was only a yes or no response. The results of the one-way ANOVA are in Table 12; the descriptive statistics follow in Table 13.

Table 12:
Results of RQ 3 one-way ANOVA

Dependent Variable: CTI Total

Source	Type III Sum of Squares	df	Mean Square	F	Sig.	Partial Eta Squared
Corrected Model	416.269[a]	1	416.269	1.062	.305	.009
Intercept	141213.102	1	141213.102	360.100	.000	.753
Disability	416.269	1	416.269	1.062	.305	.009
Error	46273.698	118	392.150			
Total	253194.000	120				
Corrected Total	46689.967	119				

a. R Squared = .009 (Adjusted R Squared = .001)

Table 13:
Descriptive Statistics of RQ 3

Dependent Variable: CTI Total

Have a disability?	Mean	Std. Deviation	N
Yes	45.21	19.344	24
No	40.55	19.912	96
Total	41.48	19.808	120

Research Question 3.1.

The first sub-question in research question three investigates if there is a significant difference in the decision-making confusion CTI construct scale. Descriptive statistics resulted in

the mean, standard deviation, and frequency of each independent variable of disability status. The mean decision-making confusion CTI construct score is 12.96 of participants that reported having a disability. The mean decision-making confusion score of those without a disability is 11.24.

A one-way ANOVA was conducted to analyze the relationship between the sample's mean decision-making confusion score and disability status. The test results were F (1, 118) = 1.53, $p = 0.219$, resulting in accepting the null that there is no significant difference between disability status and decision-making confusion in incarcerated individuals currently enrolled in a technical college. The null was accepted due to the $p > .05$. The results of the descriptive statistics are in Table 15, the results of the one-way ANOVA are in Table 14.

Table 14:
Results of RQ 3.1 one-way ANOVA

Dependent Variable: DMC score

Source	Type III Sum of Squares	df	Mean Square	F	Sig.	Partial Eta Squared
Corrected Model	56.719[a]	1	56.719	1.526	.219	.013
Intercept	11242.352	1	11242.352	302.431	.000	.719
Disability	56.719	1	56.719	1.526	.219	.013
Error	4386.448	118	37.173			
Total	20544.000	120				
Corrected Total	4443.167	119				

a. R Squared = .013 (Adjusted R Squared = .004)

Table 15:
Descriptive Statistics of RQ 3.1

Dependent Variable: DMC score

Have a disability?	Mean	Std. Deviation	N
Yes	12.9583	5.88646	24

No	11.2396	6.14688	96
Total	11.5833	6.11044	120

Research Question 3.2.

The second sub-question in research question three investigates if there is a significant difference in the commitment anxiety CTI construct scale with disability status. The dependent variable is the sample's commitment anxiety score; the independent is disability status in this question. The mean, standard deviation, and frequency of the sample in this sub-question were determined through descriptive statistics. The mean of those with a disability is 14.21, and 13.18 for those without. The descriptive statistics are displayed in Table 17.

To compare the means of the independent and dependent variables, a one-way ANOVA was conducted. The results of the one-way ANOVA indicated no significant difference between the commitment anxiety scale and disability status. The $p > .05$ at $F(1, 118) = 0.774$, $p = 0.381$. There is no significant mean difference between disability status and commitment anxiety in incarcerated individuals currently enrolled in a technical college. Results of the one-way ANOVA are shown in Table 16.

Table 16:
Results of RQ 3.2 one-way ANOVA

Dependent Variable: CA score

Source	Type III Sum of Squares	df	Mean Square	F	Sig.	Partial Eta Squared
Corrected Model	20.419[a]	1	20.419	.774	.381	.007
Intercept	14399.252	1	14399.252	545.996	.000	.822
Disability	20.419	1	20.419	.774	.381	.007
Error	3111.948	118	26.372			
Total	24626.000	120				
Corrected Total	3132.367	119				

a. R Squared = .007 (Adjusted R Squared = -.002)

Table 17:
Descriptive Statistics of RQ 3.2

Dependent Variable: CA score

Have a disability?	Mean	Std. Deviation	N
Yes	14.2083	5.49291	24
No	13.1771	5.04505	96
Total	13.3833	5.13054	120

Research Question 3.3.

The third sub-question in research question three investigates if there is a significant mean difference between the external conflict CTI construct scale and disability status, the independent variable. Descriptive statistics calculated the mean, standard deviation, and frequency of the external conflict score by disability status. The mean of the sample that reported a disability is 4.58. Of the sample that did not report a disability, the mean score is 3.72. The difference in these means is 0.86.

A one-way ANOVA was used to compare the means of the independent and dependent variables. The test yielded a non-significant result of F (1, 118) = 2.13, p = 0.147, where $p > .05$. The null hypothesis was accepted indicated that there is no significant difference between disability status and external conflict in incarcerated individuals currently enrolled in a technical college. The results of the descriptive statistics are in Table 19, the results of the one-way ANOVA are in Table 18.

Table 18:
Results of RQ 3.3 one-way ANOVA

Dependent Variable: EC score

Source	Type III Sum of Squares	df	Mean Square	F	Sig.	Partial Eta Squared
Corrected Model	14.352[a]	1	14.352	2.130	.147	.018
Intercept	1323.352	1	1323.352	196.363	.000	.625
Disability	14.352	1	14.352	2.130	.147	.018
Error	795.240	118	6.739			
Total	2627.000	120				
Corrected Total	809.592	119				

a. R Squared = .018 (Adjusted R Squared = .009)

Table 19:
Descriptive Statistics of RQ 3.3

Dependent Variable: EC score

Have a disability?	Mean	Std. Deviation	N
Yes	4.5833	2.22470	24
No	3.7187	2.67819	96
Total	3.8917	2.60831	120

Research Question 4

The fourth research question aims to answer if there is a significant mean difference between education level and career thoughts in incarcerated individuals currently enrolled in a technical college. The variables of this question are the CTI total score as the dependent variable and the highest level of education completed as the independent variable. There were 120 respondents to this question. Majority of the sample had completed their GED with 51 participants with a mean score of 44.43. The 36 respondents that completed high school had a mean score of 37.83. The mean scores of both high school and completed middle school were similar at 42.58 and 42.13. Only one participant indicated an elementary level education with a score of 23. The results of the descriptive statistics of education level are in Table 21.

The one-way ANOVA was conducted to compare the means of education level, and the CTI score yielded $F(3, 115) = 0.844$, $p = 0.5$. These results signify that the relationship between education level, and career thoughts in incarcerated individuals currently enrolled in a technical college is not significant because $p > .05$. Post-hoc tests could not be performed for this question due to the Elementary school response category having fewer than two cases. The results of the one-way ANOVA are displayed in Table 20.

Table 20:
Results of RQ 4 one-way ANOVA

Dependent Variable: CTI Total

Source	Type III Sum of Squares	df	Mean Square	F	Sig.	Partial Eta Squared
Corrected Model	1288.282[a]	4	322.070	.844	.500	.029
Intercept	29726.690	1	29726.690	77.889	.000	.404
Yrs_Ed_Com	1288.282	4	322.070	.844	.500	.029
Error	43890.218	115	381.654			
Total	254346.000	120				
Corrected Total	45178.500	119				

a. R Squared = .029 (Adjusted R Squared = -.005)

Table 21:
Descriptive Statistics of RQ 4

Dependent Variable: CTI Total

Education Complete	Mean	Std. Deviation	N
Elementary	23.00	.	1
Middle school	42.13	19.996	8
High school	42.58	23.039	24
Completed high school	37.83	19.003	36
GED	44.43	18.025	51
Total	41.75	19.485	120

Research Question 4.1.

The first sub-question in research question four investigates if there is a significant difference in the decision-making confusion CTI construct scale and the highest level of education completed. Descriptive statistics yielded the mean, standard deviation, and frequency of the decisions making confusion score by the independent variable Those with a GED score on this construct score was 12.35, followed by completed high school at 10.72. The high school mean was 11.96, middle school was 10.75, and elementary had a mean score of 6.

A one-way ANOVA was conducted to compare the means of the independent variable of education level and the dependent variable of decision-making confusion score. This test produced a non-significant result of F (3, 115) = 0.651, p = 0.627. This indicated acceptance of the null hypothesis that there is no significant difference between education level and decision-making confusion in incarcerated individuals currently enrolled in a technical college. The one-way ANOVA and research question four descriptive statistics are displayed in Table 22 and Table 23.

Table 22:

Results of RQ 4.1 one-way ANOVA

Dependent Variable: DMC score

Source	Type III Sum of Squares	df	Mean Square	F	Sig.	Partial Eta Squared
Corrected Model	96.797[a]	4	24.199	.651	.627	.022
Intercept	2208.744	1	2208.744	59.412	.000	.341
Yrs_Ed_Com	96.797	4	24.199	.651	.627	.022
Error	4275.328	115	37.177			
Total	20589.000	120				
Corrected Total	4372.125	119				

a. R Squared = .022 (Adjusted R Squared = -.012)

Table 23:
Descriptive Statistics of RQ 4.1

Dependent Variable: DMC score

Education Complete	Mean	Std. Deviation	N
Elementary	6.0000	.	1
Middle school	10.7500	5.77556	8
High school	11.9583	6.58377	24
Completed high school	10.7222	5.85838	36
GED	12.3529	6.07231	51
Total	11.6250	6.06140	120

Research Question 4.2.

The second sub-question in research question four investigates if there is a significant difference in the commitment anxiety CTI construct scale. Descriptive statistics were utilized to determine the mean, standard deviation, and frequency of the decisions making confusion score by the independent variable. The mean score of those with a GED on the commitment anxiety construct score was 14.10, followed by completed high school at 12.56. The high school mean was 13.71, middle school was 14.13, and elementary had a mean score of 6. Results of research question four descriptive statistics are in Table 23.

A one-way ANOVA was conducted to compare the means of the independent variable of education level and the dependent variable of decision-making confusion score. This test produced a non-significant result of F (3, 115) = 1.063, $p = 0.378$. Since $p > .05$, the null hypothesis that there is no significant difference between education level and commitment anxiety in incarcerated individuals currently enrolled in a technical college is accepted. The results of the one-way ANOVA are displayed in Table 24.

Table 24:
Results of RQ 4.2 one-way ANOVA

Dependent Variable: CA score

Source	Type III Sum of Squares	df	Mean Square	F	Sig.	Partial Eta Squared
Corrected Model	109.558[a]	4	27.390	1.063	.378	.036
Intercept	3011.647	1	3011.647	116.833	.000	.504
Yrs_Ed_Com	109.558	4	27.390	1.063	.378	.036
Error	2964.408	115	25.777			
Total	24890.000	120				
Corrected Total	3073.967	119				

a. R Squared = .036 (Adjusted R Squared = .002)

Table 25:
Descriptive Statistics of RQ 4.2

Dependent Variable: CA score

Education Complete	Mean	Std. Deviation	N
Elementary	6.0000	.	1
Middle school	14.1250	4.61171	8
High school	13.7083	5.71405	24
Completed high school	12.5556	5.78394	36
GED	14.0784	4.22773	51
Total	13.4833	5.08248	120

Research Question 4.3.

The third sub-question in research question four investigates if there is a significant difference in the external conflict CTI construct scale.

Descriptive statistics were utilized to determine the mean, standard deviation, and frequency of the decisions making confusion score by the independent variable. Those with a GED score on the commitment anxiety construct score was 14.61, followed by completed high school at 12.56. The high school mean was 13.71, middle school was 14.12, and elementary had a mean score of 6. The results of research question four descriptive statistics are in Table 23.

A one-way ANOVA was conducted to compare the independent and dependent variables of the decision-making confusion score. This result indicated acceptance of the null hypothesis of no significant difference between education level and commitment anxiety in incarcerated individuals currently enrolled in a technical college due to $p > .05$. The results show a non-significant result of $F(3, 115) = 0.846$, $p = 0.499$. Results of the one-way ANOVA are displayed in Table 24.

Table 26:
Results of RQ 4.3 one-way ANOVA

Dependent Variable: EC score

Source	Type III Sum of Squares	df	Mean Square	F	Sig.	Partial Eta Squared
Corrected Model	22.820[a]	4	5.705	.846	.499	.029
Intercept	301.354	1	301.354	44.707	.000	.280
Yrs_Ed_Com	22.820	4	5.705	.846	.499	.029
Error	775.172	115	6.741			
Total	2631.000	120				
Corrected Total	797.992	119				

a. R Squared = .029 (Adjusted R Squared = -.005)

Table 27:
Descriptive Statistics of RQ 4.3

Dependent Variable: EC score

Education Complete	Mean	Std. Deviation	N
Elementary	3.0000	.	1
Middle school	4.0000	3.42261	8
High school	4.7500	2.81687	24
Completed high school	3.7500	2.51140	36
GED	3.6275	2.40799	51
Total	3.9083	2.58956	120

Research Question 5

The fifth and final research question intends to answer whether there is a significant difference between previous employment experience and career thoughts in incarcerated individuals currently enrolled in a technical college. In this question, the dependent variable is the sample's mean CTI total score. The independent variable of previous employment experience had two levels of responses of either yes or no. The sample for this question consisted of 120 respondents, where 106 participants responded that they had held a job before incarceration. The remaining 14 reported they had not held a job before incarceration. The mean total CTI score of

those who had held a job before incarceration was 40.21, while those who had not held a job had a higher mean score of 49.36. The descriptive statistics are displayed in Table 29.

In order to compare the CTI total score means of these two groups, a one-way ANOVA was conducted. The results indicated acceptance of the null hypothesis that there is no significant difference between previous employment experience and career thoughts in incarcerated individuals currently enrolled in a technical college. The results had a $p > .05$ at $F(1, 118) = 2.691$, $p = 0.104$. Post-hoc tests could not be performed because there were less than three groups since the question was only a yes or no response. The results of the one-way ANOVA are displayed in Table 28.

Table 28:
Results of RQ 5 one-way ANOVA

Dependent Variable: CTI Total

Source	Type III Sum of Squares	df	Mean Square	F	Sig.	Partial Eta Squared
Corrected Model	1035.277[a]	1	1035.277	2.691	.104	.022
Intercept	99203.343	1	99203.343	257.849	.000	.686
Job	1035.277	1	1035.277	2.691	.104	.022
Error	45398.648	118	384.734			
Total	250869.000	120				
Corrected Total	46433.925	119				

a. R Squared = .022 (Adjusted R Squared = .014)

Table 29:
Descriptive Statistics of RQ 5

Dependent Variable: CTI Total

Have you ever had a job	Mean	Std. Deviation	N
Yes	40.21	19.075	106
No	49.36	23.526	14
Total	41.28	19.754	120

Research Question 5.1.

The first sub-question in research question five investigates if there is a significant difference in the decision-making confusion CTI construct scale. Descriptive statistics resulted in the mean, standard deviation, and frequency of each independent variable of previous employment experience. The mean score for the decision-making confusion construct was 11.16 for participants that reported previous employment experience. The mean decision-making confusion score of those without previous employment was 14.29.

A one-way ANOVA was conducted to analyze the relationship between the sample's mean decision-making confusion construct score and previous employment experience. The test results were F (1, 118) = 3.286, p = 0.072, resulting in accepting the null that there is no significant difference between previous employment experience and decision-making confusion in incarcerated individuals currently enrolled in a technical college. Even though the null was accepted due to the $p > .05$, this relationship between the decision-making confusion score and previous employment experience is approaching significance at 0.072. The results of the descriptive statistics are in Table 31, the results of the one-way ANOVA are in Table 30.

Table 30:
Results of RQ 5.1 one-way ANOVA

Dependent Variable: DMC score

Source	Type III Sum of Squares	df	Mean Square	F	Sig.	Partial Eta Squared
Corrected Model	120.794[a]	1	120.794	3.286	.072	.027
Intercept	8007.461	1	8007.461	217.858	.000	.649
Job	120.794	1	120.794	3.286	.072	.027
Error	4337.131	118	36.755			
Total	20397.000	120				
Corrected Total	4457.925	119				

a. R Squared = .027 (Adjusted R Squared = .019)

Table 31:
Descriptive Statistics of RQ 5.1

Dependent Variable: DMC score

Have you ever had a job	Mean	Std. Deviation	N
Yes	11.1604	6.01923	106
No	14.2857	6.40227	14
Total	11.5250	6.12058	120

Research Question 5.2.

The second sub-question in research question five investigates if there is a significant difference in the commitment anxiety CTI construct scale. The independent variable had two levels of previous employment experience or not. The mean commitment anxiety construct mean score of those with previous employment experience was 13.11, while the mean score for those without previous employment experience was 15.43. Table 33 displays the descriptive statistics for this sub-question.

To compare the sample means of the independent and dependent variables, a one-way ANOVA was conducted. This test yielded F (1, 118) = 2.551, $p = 0.113$. The $p > .05$, resulting in acceptance of the null hypothesis that there is no significant mean difference between previous employment experience and commitment anxiety in incarcerated individuals currently enrolled in a technical college. The results of the one-way ANOVA are shown in Table 32.

Table 32:
Results of RQ 5.2 one-way ANOVA

Dependent Variable: CA score

Source	Type III Sum of Squares	df	Mean Square	F	Sig.	Partial Eta Squared
Corrected Model	66.297[a]	1	66.297	2.551	.113	.021
Intercept	10074.297	1	10074.297	387.717	.000	.767
Job	66.297	1	66.297	2.551	.113	.021
Error	3066.070	118	25.984			
Total	24626.000	120				
Corrected Total	3132.367	119				

a. R Squared = .021 (Adjusted R Squared = .013)

Table 33:
Descriptive Statistics of RQ 5.2

Dependent Variable: CA score			
Have you ever had a job	Mean	Std. Deviation	N
Yes	13.1132	4.90155	106
No	15.4286	6.46546	14
Total	13.3833	5.13054	120

Research Question 5.3.

The third sub-question in research question five investigates if there is a significant difference in the external conflict CTI construct scale. Descriptive statistics were utilized to determine the mean, standard deviation, and frequency of the independent variable's decisions making external conflict construct score. The mean score of those with previous employment experience was 3.77, while the mean score of those without was 4.36. The difference in these means is 0.59.

A one-way ANOVA was conducted to compare the mean scores on the external conflict construct score for those with and without employment experience. This test indicated a non-significant mean difference between previous employment experience and external conflict in incarcerated individuals currently enrolled in a technical college. The results of F (1, 118) =

0.628, $p = 0.430$ indicate acceptance of the null hypothesis. Both descriptive statistics and one-way ANOVA results are shown in Table 35 and Table 34, respectively.

Table 34:
Results of RQ 5.3 one-way ANOVA

Dependent Variable: EC score

Source	Type III Sum of Squares	df	Mean Square	F	Sig.	Partial Eta Squared
Corrected Model	4.211[a]	1	4.211	.628	.430	.005
Intercept	817.545	1	817.545	121.840	.000	.508
Job	4.211	1	4.211	.628	.430	.005
Error	791.780	118	6.710			
Total	2567.000	120				
Corrected Total	795.992	119				

a. R Squared = .005 (Adjusted R Squared = -.003)

Table 35:
Descriptive Statistics of RQ 5.3

Dependent Variable: EC score

Have you ever had a job	Mean	Std. Deviation	N
Yes	3.7736	2.59774	106
No	4.3571	2.53004	14
Total	3.8417	2.58631	120

Summary

This study was conducted to investigate the relationship certain factors have on incarcerated students' career thoughts. These factors include repeat offender status, disability status, education level, and previous employment experience. Group membership in these factors was determined through demographic information gathered when the data used for this study was collected. To answer the five research questions and the accompanying sub-questions, the

Career Thoughts Inventory (CTI) was used. The sub-questions utilized the three construct scales of the CTI; decision-making confusion, commitment anxiety, and external conflict.

This chapter reports the results of the data analysis and conducted tests through the IBM SPSS Statistics computer program. The chapter reports this analysis through each of the five research questions and their accompanying sub-questions. Excluding the first question, which is descriptive, questions two through five and their 12 sub-questions were analyzed through a one-way ANOVA to compare mean scores across membership groups.

Chapter 4: Discussion

The purpose of this study was to gain more insight into the career thoughts of incarcerated students. The researcher sought to investigate the relationship between group membership in repeat offender status, disability status, education level, and previous employment experience on incarcerated students' career thoughts. The students in this study are incarcerated in a southern state at a technical college that serves solely incarcerated adults. This study aims to better understand the needs incarcerated individuals have regarding career counseling, reentry programming, and whether group membership in these categories impacts their career thinking. These implications to Counseling Practice, Supervision, and Counselor Education will be reviewed in this chapter. This study also intends to increase understanding of the career thoughts of incarcerated individuals who are theoretically being best prepared for career barriers during re-entry. The discussion and interpretation of the CTI and demographic questionnaire data analysis will be examined for each research question and sub-question. Lastly, limitations to this student and recommendations for future research will be discussed.

Career Thoughts of Incarcerated Students

Understanding a student's desire and motivation for employment is important for successful career attainment. Bertoch et al. (2014) indicated the importance of career thoughts, decisions, and performance to be purposeful and productive in reaching career goals. The goal of the first question was to determine if incarcerated individuals currently enrolled in technical college have positive career thoughts. To determine this, the CTI total scores and construct scores collected for this study were compared to the college student normative sample. The college student normative sample's mean is higher at 47.01 than the incarcerated student's CTI total mean at 41.42. This indicates that the incarcerated student's career thinking is more positive

than the college students. Despite this difference, it is not a significant difference. While college student's score was higher in the total score, this changes in all the construct scale scores. The incarcerated student's mean was 0.83 higher at 11.55 compared to 10.72 for college students in the decision-making confusion. Even though there is a difference, it is also not a significant difference, meaning these groups have similar levels of decision-making confusion. The second construct measures commitment anxiety. In this construct, incarcerated student's mean was 0.72 higher at 13.64 and 12.92 for college students. Similarly, with a 0.56 difference, the final construct of external conflict college students' mean was 3.32 while the incarcerated students were 3.88. While incarcerated students in each of these constructs displayed a slightly higher level of dysfunctional thinking, there is no significant difference.

The demographics of the normative group have some slight differences from participants in this study. The main difference was in the average age of the samples. The participants' age range collected in this study was 18 to 60 years old. The majority of participants in this study were between 27 to 44 years old, and the mean age of 36.34 years. In the normative college student sample, the average age was 22, ranging from 17 to 56 years (Sampson et al., 1996). The range of these ages is not much different, but the average age in the groups shows a discrepancy. This age discrepancy could impact on the career thoughts of the incarcerated students due to more vast life experience. Overall, these results indicate that compared to other college students, the technical college's incarcerated students have similar levels of career thoughts.

Re-offense

Recidivism rates are a primary issue faced in corrections. Cooper et al. (2014) reported that 76.9% were rearrested within five years of reentry. Formerly incarcerated individuals often experience difficulty attaining employment since employers are often hesitant to hire those with

a criminal history. This often leads to homelessness and poverty, which can lead to criminal involvement. Research question two and the sub-questions focused on answering if a significant difference between re-offense and career thoughts in incarcerated individuals currently enrolled in a technical college exists. To answer this question, a one-way ANOVA was conducted in addition to descriptive statistics of the population. All 121 participants of the study responded to this question. There were 63, or 52%, participants that reported being repeat offenders. The means of the CTI total score of repeat and non-repeat offenders only had a 1.08 point difference. The ANOVA results do not indicate a significant difference between the CTI total score and repeat offender status. For all three construct scales, decision-making confusion, commitment anxiety, and external conflict ANOVA results did not yield significant results. These results are both consistent and inconsistent with some prior research. Bertoch et al. (2014) discussed how performance in career courses and having a clear vision for their goals results in more purposeful and productive career thoughts. The results of this study indicate that incarcerated students do, on average, have productive and positive career thoughts whether the individual is a repeat offender or not.

Disability Status

Prior studies indicated that college students with a disability experienced significantly higher external conflict levels than those without disabilities (Sears et al., 2014). Incarcerated groups are likely to have a disability, and those with a disability are more likely to have multiple disabilities (Bronson et al., 2015). The third research question and sub-questions aimed to answer if there is a significant difference between disability status and career thoughts in incarcerated students. Of the 121 participants, one individual chose not to respond, 96 individuals reported not having a disability, and 24 reported having a disability. The mean CTI total score of those

with a disability was 45.21 and 40.55 for those without a disability. A one-way ANOVA was performed on the CTI total score and construct scale scores to compare the means of the independent and dependent variables. There was no significant difference between disability and career thoughts of incarcerated students on the CTI total score, the decision-making confusion, commitment anxiety, or external conflict construct scales. The lack of significant difference is beneficial to reentry planning for incarcerated students because facility reentry and college personnel will know what level of focus to give on their aspect of a incarcerated persons reentry planning. While this data set only had 20% indicating a disability, Trotter and Noonan (2016) indicated that 40% of inmates report having a disability. This difference could be due to many other factors. However, it is worth considering if this sample just had lower rates of disability status or if those that pursue further education while incarcerated typically have lower rates of disability.

Education Level

Research question four sought to answer if there a significant difference between education level and career thoughts in incarcerated individuals currently enrolled in a technical college. The sub-questions sought to answer if there was a significant difference between education level and the three construct scales of decision-making confusion, commitment anxiety, and external conflict. In the United States, more state correctional facilities provide opportunities for incarcerated individuals to complete their GED, and Couloute (2018a) reported that previously incarcerated individuals are more likely to have their GED rather than a high school diploma. The demographics of the data in this study agreed with this statement, with 42% of respondents having a GED as their highest level of education completed, and the following closest groups are 30% completing high school. One hundred twenty of the incarcerated students

reported their education level. A one-way ANOVA was performed to determine differences across the education levels and their CTI total and construct scores. The results in all four scoring areas signify a lack of significant difference between the independent and dependent variables. The education level that had the highest level of external conflict was those that attended but did not complete high school. This differs from previous studies, which identified that the individuals who had only grade school or some grade school as their highest education level had the highest instances of external conflict (Derzis et al., 2017). On the commitment anxiety scale, incarcerated students whose highest level of education was middle school, had the highest scores on this construct. Lastly, regarding the decision-making confusion construct scale, those with their GED had the highest levels of dysfunctional thinking.

Previous Employment Experience

Often for incarcerated individuals, employment becomes a barrier to successful reentry. The final research question and sub-questions ask whether there is a significant difference between previous employment experience and career thoughts, decision-making confusion, commitment anxiety, and external conflict in incarcerated students. The overwhelming majority, 88% of respondents, reported having previously been employed before their current incarceration. This increased from the 86% that reported previous employment a few years earlier (Curtis et al., 2013). This is an even more considerable increase from the Rampey et al. (2016) PIAAC assessment study, which exhibited that 65% of the incarcerated individuals assessed had worked full or part-time in the year before their incarceration. The results of the one-way ANOVA conducted to analyze the mean differences indicated a non-significant difference between employment experience and the CTI total score. There was also a lack of significance in comparison with the external conflict construct and commitment anxiety. Sub-

question 5.1 asked about the decision-making confusion construct scale. While it was also ruled a having no significant difference, it is worth noting that this was the lowest significance value and approaching significance. This indicates that if the sample size was larger or if there had been more individuals without previous employment experience within the current sample, there could have been a significant difference in dysfunctional thinking in this construct. Sampson et al. (1996) explain that decision-making confusion refers to the inability to make or maintain the decision-making process due to a lack of understanding or disabling emotions. Bertoch et al. (2014) had indicated that stressful environments and situations, such as prison and preparing for a first job post-release, results in indecision and uncertainty, which could be the reason for decision-making confusion.

Implications of Counseling Practice, Supervision and Counselor Education

Working in corrections is a narrow specialty group in the counseling field; those serving incarcerated students is even more narrow. However, mass incarceration in the US increases the likelihood of someone who has been incarcerated seeking counseling. Even if it is not your client, someone you will work with in the field could likely be affected by incarceration or under correctional control. In 2016, over 6.5 million individuals were under correctional control, meaning they were in prison, jail, paroled, or on probation (The Sentencing Project, 2020). These results assist in preparing incarcerated individuals, both students, and non-students, for reentry and entering the career force. The knowledge that disability status, education level, re-offense, and employment experience does not appear to influence career thinking. This information could also be used to understand that even though these students are incarcerated, their status in either of the dependent variables does not influence their career thinking. Counselors should still tailor their work to the individual. Counseling practice both at this technical school and in correctional

facilities is focused on reentry and reducing recidivism. So, while this aspect of the field is narrow, it is still vital for those who do work in corrections to know their career thoughts. Counselors also play a fundamental role in connecting individuals to community-based programs. These programs are a predictor of success, which means that understanding the needs of this population and the programs that are successful for them is essential to reentry success (Johnson et al., 2015).

Concerning counseling supervision and education, these same insights create an understanding of what the needs of supervisees' incarcerated clients may need. Often novice counselors are placed in working with clients who have a criminal history, whether by choice or by requirement. This can be difficult for supervisors to navigate, especially if they do not have their own experience working with offenders. Knowing that the criminal justice system currently has close to 7 million people under supervision in the United States alone, and it is very common for those with a criminal history to have a substance abuse disorder or another mental illness (Peters et al., 2017). With such a large population under criminal justice supervision, it is very likely for a counselor to encounter a client with a criminal history. As a supervisor of novice counselors, it is imperative to know the issues incarcerated individuals face, including the difficulties in career attainment and expected levels of dysfunctional career thinking.

Limitations of the Study

There are a variety of limitations of this study. The first is that this study was only able to give a preliminary insight into the career thoughts of the incarcerated students. Career thoughts of incarcerated students were examined using the Career Thoughts Inventory. Their results were analyzed and compared across various identities and life experiences, including disability status, previous work experience, recidivism, and education level. While these scores give you a

preliminary understanding of dysfunctional career thinking across an overall score and the three construct scores, it does not provide deeper insight into what causes these dysfunctional thoughts. Without that insight, it is difficult to make substantial changes to assist individuals in attaining employment post-incarceration.

Another limitation to the study was not knowing what level of career intervention these students are receiving both as a general group at each campus and on an individual basis with a counselor at the college. Sampson et al. (1996) provided information about the percentage of the normative population was receiving career assistance. Of the sample, 54.8% were receiving career assistance and intervention. Knowing the level of career assistance incarcerated students are receiving would provide greater insight into the CTI scores and each construct score.

When considering the research question investigating disability, a smaller number of individuals reported having a disability than expected compared to the typical incarcerated population. There are two possible causes identified at this time as to why the first being stigmatization. Having a disability can feel stigmatizing, especially considering aspects of social desirability when reporting it on an assessment. There is also a wide range of what is considered a disability, but in the context of this data collection, that may not have been understood by the participants. Another cause could be that typically, incarcerated student populations have lower rates of individuals with disabilities. It would also be worth investigating whether those can pursue education while incarcerated may have lower rates of disability or if this is just the case with this sample.

Recommendations for Future Research

Future studies of incarcerated student's career thoughts would be remarkably interesting after the challenges brought about by the Covid-19 pandemic. In prisons, there have been

significant changes in operations due to limiting transmission and infections, and the school serving these individuals have changed as well. Instructional methods have changed, which is a change in the typical career interventions provided at the time of data collection for this study. Future studies could compare a sample of students who were still in classes through these changes and compare to this sample. The Covid-19 pandemic changed the landscape of society and how day-to-day functions take place throughout the country. Future studies could investigate if the pandemic and increased dysfunctional career thinking.

This study intended to determine if the technical college career interventions are successfully impacting career thinking similarly to interventions at colleges, which is why this data was compared with the college student normative data. Conducting analyses of this data sample with similar data of incarcerated individuals without career intervention or technical training at the same correctional facilities could provide even more insight into how enrollment in this technical college impacts career thinking.

A further study of these same measurement methods but utilizing mixed methods could provide an even greater understanding. Utilizing qualitative methods post-assessment with all but especially those with higher dysfunctional thinking within the total scale and constructs to understand better why incarcerated students have these concerns. This could provide a deeper understanding of how specific individual factors are or have been addressed and how they could be addressed better addressed in the future. A longitudinal study of a group of post-incarceration individuals who completed their technical college programs at this school and comparing the recidivism rates and how education and career intervention while incarcerated influences reentry and employment would be beneficial to the field and extend the findings of this study.

Conclusion

This chapter includes the discussion and interpretation of results, implications for the field, limitations, and recommendations for future research. The current study advances the understanding of career thoughts of specifically incarcerated students. There is not a body of research at this time looking at this specific group since programs such as this technical college are still new, however starting to understand the effect they have on reentry and career thoughts of incarcerated students could be beneficial to continue the decline of recidivism rates. This study indicates no significant difference in the sample's total CTI scores or the three construct scores compared to re-offense, disability status, education level, and previous employment experience. Additional studies examining specific aspects of this study deeper and utilizing a mixed-methods approach would further understand the data; a longitudinal study was also suggested.

Chapter 5: Manuscript

Career Thoughts of Incarcerated Students

Abstract

In 2018, the Bureau of Justice Statistics released the results of a nine-year longitudinal study following 412,731 inmates released in 2005, finding 84% of these individuals were rearrested (Alper et al., 2018). This high recidivism rate shows a clear need for reentry intervention to reduce these rates. A key part of reentry should be career readiness, for this to be successful, individuals need to attain skills and education that are congruent to the skills needed in the labor force. Providing career assistance and interventions to those entering the workforce is understanding an individual's desire and motivation in career and education, and negative career thoughts predict job attainment and satisfaction. The purpose of this study was to examine the career thoughts of incarcerated students and determine if intersections of their identities effect their career thoughts through use of the Career Thoughts Inventory and demographic information. The intersections examined includes; re-offense, disability status, education level, and employment experience. This study focuses on investigating the career thoughts of incarcerated students at a technical college serving only incarcerated adults. Results of this study indicate that these intersections do not have a significant difference with incarcerated student's career thoughts.

Keywords

incarceration, incarcerated students, career thoughts inventory, recidivism, reentry, career counseling

Introduction and Background Recidivism and Reentry

The National Research Council reported that half of the 222% growth in the state prison population in the twenty years between 1980 and 2010 was due to this increase in sentence length (Travis, 2014). These decades of harsh sentencing have left the United States with the world's highest incarceration rate. High incarceration rates lead many individuals to be released from prison without a practicable reentry and career plan to make them successful after release from prison. It has been reported that 67.8% of all released inmates were rearrested within three years, and 76.9% were rearrested within five years (Cooper et al., 2014). The Bureau of Justice Statistics released a nine yearlong longitudinal study following 412,731 inmates released by 30 states in 2005 to track recidivism rates (Alper et al., 2018). Within the first year, 45% of the former inmates were rearrested, with another 24% being rearrested within three years. In the following four to six years, another 11% were rearrested and 4% more were rearrested in seven to nine years. These rates total to 69% of these 412,731 individuals who were rearrested within three years and 84% within nine years (Alper et al., 2018). These numbers display the need for reentry programming changes that address causes of recidivism.

Education and Career Attainment of Incarcerated Individuals

Reentry into society is difficult and can be more or less difficult dependent on the individual’s education level and employment history. Individuals need to attain skills that are congruent to the skills needed in the labor force, but Rampey (2016) identified that only 30% of incarcerated individuals had been offered educational opportunities while in prison. When compared to those that have not served prison sentences, incarcerated individuals are behind in reading, writing, and mathematics education compared to similar groups in the general population. Most state institutions provide opportunities for incarcerated individuals to complete

their General Education Development, or GED, a test that qualifies as the equivalent to a high school diploma. In fact, people that have served time in prison are more likely to have their GED rather than a high school diploma (Couloute, 2018a). The Program for the International Assessment of Adult Competencies (PIAAC), which measures the relationship between educational background, cognitive skills, use of information and communication technology, and workplace experiences and skills. Two-thirds of the incarcerated population that had a high school diploma in PIAAC scored level 2 or lower in literacy, and 90% of those without a high school diploma had the same results (Rampey et al., 2016). Low education background creates an addition barrier to previously incarcerated individuals for career attainment.

As previously mentioned, there are oftentimes opportunities to enroll in academic programs, according to Rampey et al., (2016) those who wanted to enroll in academic classes or programs mostly desire to learn more with a focus on improving their job prospects post-release. There are four types of programming focused on teaching skill sets needed for employment. The programs which are most commonly offered in correctional education, including, adult basic education, high school and GED, post-secondary education, and vocational education. A meta-analysis of incarcerated adult educational programs found that most of the studies resulted in lower recidivism rates among those who participated in these programs (Davis et al., 2013).

The highest level of education in more than half of previously incarcerated individuals is a GED or high school diploma, which have a diminishing value in the workforce (Couloute, 2018a). Incarcerated individuals can attain career skill training through prison jobs while incarcerated. The PIAAC assessment indicated that 61% of the polled incarcerated population held a prison job at that time (Rampey et al., 2016). Prison jobs are a good method to increase skill and responsibility which are important to holding a job upon reentry. However, these jobs

are still most often held by those with higher education levels than other inmates. The PIAAC assessment demonstrated that only 47% people without a high school credential held a prison job, compared to the 67% of those with a high school credential. This percentage continued to increase for those polled with an Associate degree, 73% of them hold a prison job (Rampey et al., 2016). These numbers indicate that while prison jobs are a good method to increase preparedness for employment upon reentry, those with a prison job had higher literacy skills than the peers who did not have a job in prison.

The Effect of Disability Status.

Disability status can influence career and academic matriculation and education serves and important function in job attainment for people with disabilities. The National Center for Education Statistics released high school graduation rates for both individuals with and without disabilities for the 2015-2016 academic year throughout the United States. Individuals with disabilities demonstrated a 65.5% graduation rate, which was an increase of 0.9% from the prior academic year (National Center for Education Statistics, 2017). A 2016 study reported that 40% of jail inmates had at least one disability, while an additional 16% said they had multiple disabilities (Trotter & Noonan, 2016).

Overall, the incarcerated population is more likely to have a medical history, including a chronic medical condition or disease. Bronson et al. (2015) stated that two in 10 incarcerated adults reported having a cognitive disability, which was the most reported type of disability in this study at 31%. This is almost triple the percentage of individuals with disabilities in the general population at 11%. In this same group, the number of individuals with disabilities increased another 13% when specifying by age to be only inmates older than 50 years old compared to decreasing by 4% when only including those between the ages of 18-24 (Bronson et

al., 2015). Inmates with a disability were also more likely to report a comorbid disorder than those without a disability. These statistics indicate the need to address the career readiness of incarcerated adults with disabilities.

Career Thoughts

Career thoughts are defined as the outcomes of an individual's thinking about assumptions, attitudes, behaviors, beliefs, feelings, plans, and strategies related to career decision making and problem-solving (Sampson et al., 2004, p. 91). Dysfunctional career thinking makes career choice and decision making much more difficult. Liu et al. (2014) used a measure of career maturity as a similar definition to the definition of career thoughts identified in this study and reported that it was associated with better job attainment outcomes. The greater the maturity and less dysfunctional career thoughts resulted in more positive career attainment outcomes (Liu et al., 2014). Those with greater maturity and career thoughts, those individuals had a better chance at obtaining and maintaining employment. Certain career preparation tasks are often avoided by individuals due to their own negative self-beliefs (Fenning et al., 2013). This could lead to what Sampson et al., (p. 2, 1996) identified as decision-making confusion due to the inability to complete tasks for the decision-making process for career choices. The results of the Fenning et al., (2013) study indicated that those with higher self-efficacy, which leads to lower decision-making confusion, less dysfunctional career thinking, and greater career attainment. Often the biases and distorted career thoughts are unnoticed and the environments of individuals gaining career training should be taken into account, as it also has an effect on career thinking.

A fundamental challenge to providing career assistance and interventions to those entering the workforce is understanding an individual's desire and motivation in career and education related to employment. Bertoch et al. (2014) focused on the goal instability related to career

thoughts, decisions, and performance in career courses. Goal stability is predicated on the idea that people need to have a clear vision of their goals in order to be purposeful and productive. The foundation of the Bertoch et al. (2014) study was the belief that goal instability is associated with readiness for career exploration. Stress can influence career readiness and decisions. When individuals are in stressful situations or environments, uncertainty and indecision will often occur, which will result in a level of either satisfaction or dissatisfaction with their choice (Bertoch et al., 2014). Education level appears to have some influence on career thoughts. Derzis et al. (2017) identified that the individuals who had only grade school or some grade school as their highest education level had the highest instances of external conflict. In order to make career decisions and explore career options, the individual must be able to engage in decision-making and problem-solving processes. The model developed by Bullock-Yowell et al., (2012) informed career counselors that negative career thoughts explain a portion of exploratory behavior and problem-solving self-efficacy. There is a relationship between negative career thoughts and exploratory behavior, indicating that it is important for career counselors to intervene early in dysfunctional career thinking to be more successful in initiating problem-solving behaviors in the future (Bullock-Yowell et al., 2012). When Thrift et al. (2012) initiated a similar model with a diverse group of college students and conducted a pre- and post- CTI assessment to measure the effectiveness of the career intervention, there was a significant effect on the overall score and two of the assessment's construct scales, both the decision-making confusion and commitment anxiety scales. The post-tests also revealed that there was a significant reduction in negative career thoughts on the decision-making confusion scale and commitment anxiety scale. Career thoughts and decision-making abilities have an impact on

career attainment; therefore it is imperative that dysfunctional and negative career thoughts be addressed in students, especially incarcerated students, prior to entering the field.

Statement of the Problem and Significance of the Study

As rates of incarceration and recidivism increase, there needs to be a way to address the problems that afflict the formerly incarcerated population. Research indicates the increased prevalence of homelessness, unemployment, and poverty among this population. These issues are often due to a lack of career development and job attainment, which results in a clear need for successful employment to reduce recidivism. The Career Thoughts Inventory can help identify negative career thoughts for intervention and better career development before reentry. This study aims to assess what aspects of re-offense, disability status, education level, and employment experience effects the career thoughts of incarcerated individuals currently enrolled in a technical college.

This study is significant because previously most research in the population has only focused on incarcerated individuals, but not solely on those that attend higher education. This school is unique due to its goal to serve incarcerated adults and reduce recidivism through assisting individuals be prepared for employment post-incarceration. This is time to thoroughly examine incarcerated individuals' career thoughts in educational and career programming prior to release back into society to decrease the risk of recidivism, as employment is a primary indicator for successful reentry. Research focused on rehabilitation and education of incarcerated groups in order to reduce recidivism has increased over the last 20 years, but little research focusing on the unique group of incarcerated students and career intervention has been produced. The purpose of this study is to determine if there is a relationship between Career Thoughts and re-offense, disability status, education level or employment experience.

Research Questions

Using a demographic questionnaire and formal assessment measures, the study investigates the following research questions:

RQ1: Do incarcerated individuals currently enrolled in a technical college have positive career thoughts?

RQ2: Is there a significant difference between re-offense and career thoughts in incarcerated individuals currently enrolled in a technical college?

RQ2.1: Is there a significant difference between re-offense and decision-making confusion in incarcerated individuals currently enrolled in a technical college?

RQ2.2: Is there a significant difference between re-offense and commitment anxiety in incarcerated individuals currently enrolled in a technical college?

RQ2.3: Is there a significant difference between re-offense and external conflict in incarcerated individuals currently enrolled in a technical college?

RQ3: Is there a significant difference between disability status and career thoughts in incarcerated individuals currently enrolled in a technical college?

RQ3.1: Is there a significant difference between disability status and decision-making confusion in incarcerated individuals currently enrolled in a technical college?

RQ3.2: Is there a significant difference between disability status and commitment anxiety in incarcerated individuals currently enrolled in a technical college?

RQ3.3: Is there a significant difference between disability status and external conflict in incarcerated individuals currently enrolled in a technical college?

RQ4: Is there a significant difference between education level and career thoughts in incarcerated individuals currently enrolled in a technical college?

RQ4.1: Is there a significant difference between education level and decision-making confusion in incarcerated individuals currently enrolled in a technical college?

RQ4.2: Is there a significant difference between education level and commitment anxiety in incarcerated individuals currently enrolled in a technical college?

RQ4.3: Is there a significant difference between education level and external conflict in incarcerated individuals currently enrolled in a technical college?

RQ5: Is there a significant difference between previous employment experience and career thoughts in incarcerated individuals currently enrolled in a technical college?

RQ5.1: Is there a significant difference between previous employment experience and decision-making confusion in incarcerated individuals currently enrolled in a technical college?

RQ5.2: Is there a significant difference between previous employment experience and commitment anxiety in incarcerated individuals currently enrolled in a technical college?

RQ5.3: Is there a significant difference between previous employment experience and external conflict in incarcerated individuals currently enrolled in a technical college?

Participants

The participants of this study are currently incarcerated individuals who are currently enrolled at a technical college in a southern state. The sample population included 121

participants from men's and women's correctional facilities at either of the three campuses this technical college has. Within these programs, students gain life skills training and job placement assistance. The population included participants from men's and women's correctional facilities at either of the three campuses for this technical college. Researchers met with all 121 student inmates prior to completing the assessments. In this meeting, researchers explained the purpose of collecting data was to understand the career development and job interests of students currently enrolled.

Procedures and Data Analysis

The instruments used in this study include a demographic questionnaire and the Career Thoughts Inventory (CTI). The demographic questionnaire evaluates the demographics of the population participating in the study. The CTI is based on the cognitive information processing theory to career development. Results of this assessment can be used to better address the needs of individuals relating to career planning and interventions. The inventory is a 48-question that utilizes a Likert scale of strongly disagree, disagree, agree, and strongly agree. This assessment has three construct scales; decision-making confusion, commitment anxiety, and external conflict. When this data was collected, researchers explained the purpose of the data collection and presented the results of their CTI to the students. The students were given the assessment and their results even if they did not consent to their results being in the study. The results of those that consented to the study were deidentified and entered into the IBM SPSS Statistics program. This software was uses to perform descriptive statistics and a one-way analysis of variance (ANOVA). The descriptive statistics were used to analyze the demographic information collected, specifically percentage measure of frequency for each response, the mean measure of central tendency of scores in total CTI and the three constructs, and standard deviation measure

of variation of the scores. The one-way ANOVA was used to examine the difference in assessment and construct scores with the participant's group affiliation.

Results

Demographics

The participant population included 121 student inmates from three campuses for the same technical college; one campus serves inmates from women's state correctional facilities and the other two campuses serve men's state correctional facilities. Of the total 121 participants, their ages fell between 18 to 60 years old, with a mean age of 36.34 years. Majority (32.2%) of the sample fell between 36-44 years old. Ages 27-35 were the second largest group at 29.8%, and 17.4% of the sample was between the ages of 18-36 years old. The final two age groups were 45-53 years old (13.2%) and 54+ (7.4%). The sample was split between three identified gender responses: Female, Male, and Transgender. Majority of the sample identifies as male at 76.9%, or 93 participants. 27 participants in the sample, or 22.3% of the sample identifies as female. One participant in the sample identifies as transgender, or 0.8%.

The participant's race in this sample is split into five categories: African American/Black, Caucasian/white, Hispanic/Latino, two or more, and other. Majority at 48.8% of the sample selected their race as Caucasian/white. The second largest race group in the sample was African American/Black with 43.8%. The last two categories comprised of a total 7.5% of the sample: 3.3% selecting other, 2.5% selecting two or more, and 1.7% selecting Hispanic/Latino.

Repeat offender status, disability status, and previous employment experience offered a yes or no response. Of the 121-participant sample, 63 or 52.1% of the sample replied yes that they were a repeat offender, while 58 participants or 47.9% of the sample replied no. The majority of the sample indicated they did not have a disability (79.3%). Regarding previous

employment, 87.6% indicated they did have full-time employment experience prior to incarceration. Lastly, the education category comprised of five categories; Elementary school, Middle school, high school, completed high school, and GED. Majority of respondents indicated that GED was the highest level of education they had completed with 42.1%. The next two largest categories comprise of 29.8% completed high school and 19.8% completed some high school. Only 6.6% of the sample completed middle school and 1 participant or 0.8% of the sample completed elementary school. Table 1 illustrates the demographic characterization and data described in this section.

Table 1:
Demographics of Participants

	Characteristics	N	%	Valid %
Age	18 - 26	21	17.4	17.4
	27 - 35	36	29.8	29.8
	36 - 44	39	32.2	32.2
	45 - 53	16	13.2	13.2
	54+	9	7.4	7.4
Gender	Female	27	22.3	22.3
	Male	93	76.9	76.9
	Transgender	1	.8	.8
Race	African American/Black	53	43.8	43.8
	Caucasian/white	59	48.8	48.8
	Hispanic/Latino	2	1.7	1.7
	Two or more	3	2.5	2.5
	Other	4	3.3	3.3
Repeat Offender	Yes	63	52.1	52.1
	No	58	47.9	47.9
Disability	Yes	24	19.8	20.0
	No	96	79.3	80.0
	Missing	1	.8	
Education Completed	Elementary	1	.8	.8
	Middle school	8	6.6	6.7
	High school	24	19.8	20.0
	Completed high school	36	29.8	30.0
	GED	51	42.1	42.5
	Missing	1	.8	
Previously Employed	Yes	106	87.6	88.3
	No	14	11.6	11.7
	Missing	1	.8	

Research Question 1: Incarcerated Students Career Thoughts

The first research question sought to determine if incarcerated individuals currently enrolled in a technical college have positive career thoughts. The CTI total mean for incarcerated

students was 41.42, which is 5.59 less than the mean of the college student normative sample. While the mean of the total score is lower than the normative sample, each of the construct scales were higher in the incarcerated student sample. The college student sample for the decision-making confusion construct mean was 10.72 but increased to 11.55 for this study's incarcerated student sample. The college student normative sample for commitment anxiety had a mean score of 12.92, compared to 13.64 for the incarcerated student sample. Lastly, the mean score for external conflict for the college student normative sample was 3.32, compared to the incarcerated students sample mean of 3.88. These scores across groups are displayed in Table 2 below.

Table 2:
CTI Descriptive Statistics Across Groups

	Scale	Mean	Std. Dev.	SEM
College Students	CTI Total (48 items)	47.01	20.89	.86
N=595	DMC (14 items)	10.72	7.39	.30
	CA (10 items)	12.92	5.36	.22
	EC (5 items)	3.32	2.15	.09
Incarcerated Students	CTI Total (48 items)	41.42	19.74	1.80
N=121	DMC (14 items)	11.55	6.10	.55
	CA (10 items)	13.64	5.70	.52
	EC (5 items)	3.88	2.60	.24

Research Question 2: Re-Offense

The second research question and sub-questions asked if there a significant difference between re-offense and career thoughts in incarcerated individuals currently enrolled in a technical college. All 121 participants of the study responded to this question. Across the board there was no significant difference in the main question regarding the CTI total score and re-offense status, as well as not significant difference in either of the three construct scales of external conflict, commitment anxiety, or decision-making confusion of incarcerated students.

Research Question 3: Disability Status

The third research question aimed to answer if there is a significant mean difference between disability status and career thoughts in incarcerated individuals currently enrolled in a technical college. In all four parts of this question there were 120 respondents, as one participant declined to answer. On the CTI total score and the three construct scores, significant difference was not found. This indicates that disability status does not affect the career thoughts of incarcerated students.

Research Question 4: Education

Research question four and the sub-questions asked if there is a significant mean difference education level and career thoughts in incarcerated students. There was one participant that did not answer this question, therefore there were 120 respondents to the question regarding their education level. The on-way ANOVA conducted on the CTI total score and the three constructs yielded no significant difference. This indicates that education level has no influence on the career thoughts, external conflict, commitment anxiety, or decision-making confusion of incarcerated students.

Research Question 5: Employment Experience

The fifth research question and sub-questions examined the relationship of previous employment experience and career thoughts of incarcerated students. This question examined the results of the CTI total score and the three construct scores which include, external conflict, commitment anxiety, or decision-making confusion. There was no significant difference on any of the score, total nor construct, areas in relation to previous employment experience. There was one area in which the relationship between decision-making confusion score and previous

employment experience is approaching significance at 0.072. This was closer than any other result.

Discussion

A student's desire and motivation for employment are important for successful career attainment as these thoughts, decisions, and performance are imperative to be purposeful and productive in reaching career goals (Bertoch et al., 2014). The goal of the first question was to determine if incarcerated individuals currently enrolled in technical college have positive career thoughts. To determine this, the CTI total scores and construct scores collected for this study were compared to the college student normative sample. The normative sample for the college student mean is higher at 47.01 than the incarcerated student's CTI total mean at 41.42 in the data collection used for this study. While this indicates that the incarcerated student's career thinking is more positive than the college students, it is not a significant difference. In the decision-making confusion, the incarcerated student's mean was 0.83 higher at 11.55 compared to 10.72 for college students. Once again though, there is also not a significant difference and college students and incarcerated students have similar levels of decision-making confusion. The second construct measures commitment anxiety. In this construct incarcerated student's mean was 0.72 higher at 13.64 and 12.92 for college students. Similarly, with a 0.56 difference, in the final construct of external conflict college students mean was 3.32 while the incarcerated students were 3.88. While incarcerated students in each of these constructs displayed a slightly higher level of dysfunctional thinking, there is not a significant difference between the populations.

Re-offense

Recidivism is a major issue faced by corrections today, in fact it has been reported that 76.9% were rearrested within five years of reentry (Cooper et al., 2014). Often, previously incarcerated people have difficulty attaining employment due to their criminal history. Research question two and the sub-questions focused on answering if a significant difference exists between re-offense and career thoughts in incarcerated students.

There were 52%, participants that reported being repeat offenders and the means of the CTI total score of repeat and non-repeat offenders only had a 1.08-point difference. The results do not indicate a significant difference between the CTI total score or the three construct scales and repeat offender status. These results are both consistent and inconsistent with some prior research. Bertoch et al. (2014) discussed how performance in career courses and having a clear vision for their goals results in more purposeful and productive career thoughts. The results of this study indicate that incarcerated students on average have productive and positive career thoughts whether the individual is a repeat offender or not.

Disability Status

Incarcerated groups are likely to have a disability, and those with a disability are more likely to have multiple disabilities (Bronson et al., 2015). The third research questions intended to answer if there is a significant difference between disability status and career thoughts in incarcerated students. There were 120 respondents to this question with the mean CTI total score of those with a disability at 45.21 and 40.55 for those without a disability. A one-way ANOVA results indicated that there was not a significant difference between disability and career thoughts of incarcerated students on the CTI total score, nor on the decision-making confusion, commitment anxiety, or external conflict construct scales. The lack of significant difference is

beneficial to reentry planning for incarcerated students, this could also indicate that any accommodations being provided to these students with disabilities at this technical college are beneficial and correct.

Education Level

Research question four aimed to answer if there a significant difference between education level and career thoughts in incarcerated students and the sub-questions sought to answer if there was a significant difference between education level and the three construct scales of, decision-making confusion, commitment anxiety, and external conflict. 120 of the incarcerated students reported their education level. Couloute (2018a) reported that previously incarcerated individuals are more likely to have their GED rather than a high school diploma, as United States correctional facilities provide opportunities for incarcerated individuals to complete their GED more often than not. Data demographics in this study portry this with 42% of respondents having a GED as their highest level of education completed and 30% completing high school. The results of the one-way ANOVA in all four scores signify a lack of significant difference between the independent and dependent variable. It was notices that those with the highest level of external conflict was those that attended, but did not complete, high school. This differs from previous studies which identified that the individuals who had only grade school or some grade school as their highest education level had the highest instances of external conflict (Derzis et al., 2017). Incarcerated students whose highest level of education was middle school, had the highest scores on the commitment anxiety scale. Lastly, regarding the decision-making confusion construct scale, those that had their GED had the highest levels of dysfunctional thinking.

Previous Employment Experience

The final research question and sub-questions ask whether there is a significant difference between previous employment experience and career thoughts, decision-making confusion, commitment anxiety, and external conflict in incarcerated students. This question is important because often for incarcerated individuals, employment becomes a barrier for successful reentry. Majority of respondents (88%) reported having previously been employed prior to their current incarceration. This was an increase from the 86% that reported previous employment a few years earlier (Curtis et al., 2013). The results of the one-way ANOVA conducted to analyze the mean differences indicated there was not a significant difference between employment experience and the CTI total score. There was also a lack of significance in the comparison with the external conflict construct and commitment anxiety. In the sub-question asking about decision-making confusion construct scale and previous employment, it is worth noting that this was the lowest significance value and approaching significance, despite there being no significant difference. In the future this question should be expanded on with this group, as it indicates there could have been a significant difference in dysfunctional thinking in this construct. Decision-making confusion refers to the inability to make or maintain the decision-making process due to lack of understanding or disabling emotions (Sampson et al., 1996). Bertoch et al. (2014) had indicated that stressful environments and situations, such as prison and preparing for a first job post-release, results in indecision and uncertainty, which could be the reason for decision-making confusion.

Limitations of the Study and Recommendations for Future Research

There are a variety of limitations of this study, the first being that this study was only able to give a preliminary insight into the career thoughts of the incarcerated students. Career

thoughts of incarcerated students were examined using the Career Thoughts Inventory, then the results were analyzed and compared across various identities and life experiences including disability status, previous work experience, recidivism, and education level. While these scores provide a preliminary understanding of dysfunctional career thinking across an overall score and the three construct scores, it does not provide deeper insight into what causes these dysfunctional thoughts which without that insight it is difficult to make substantial changes to assist individuals in attaining employment post-incarceration. A further study of these same measurement methods but utilizing mixed methods could provide even greater understanding. Utilizing qualitative methods post-assessment with all but especially with those with higher dysfunctional thinking within the total scale and constructs to better understand why incarcerated students have these concerns. This could provide a deeper understanding of how specific individual factors are or have been addressed and how they could be addressed better addressed in the future.

This data set had a smaller rate of individuals reporting having a disability than expected compared to typical incarcerated population. The author identified two different causes that could be possible for this result. The first being the stigmatization that having a disability can bring, especially considering aspects of social desirability. Another cause could be that the student population typically has smaller rates of individuals with disabilities. It would be worth investigating whether those that are able to pursue education while incarcerated may have lower rates of disability or if this is just the case with this sample.

Future studies of incarcerated student's career thoughts would be interesting after the Covid-19 pandemic and the unique challenges it brought. Prisons have faced major operational changes due to limiting infection and transmission of the virus. These changes also affected the technical college and its instructional delivery methods. This change has taken place since the

data for this study was collected. Future studies could compare the sample of students from this study to those who were in classes and still are in classes through the changes in response to Covid-19. The comparison could reflect how the instructional changes affected the career thinking of incarcerated students, as well as a possible qualitative addition to the study could indicate if any fears are due to the changing landscape and new daily functions of society across the country. These studies could investigate if the pandemic affected dysfunctional career thinking.

Conclusions

The intent of this study was the determine if the technical college career interventions are successfully impacting career thinking similarly to interventions at colleges for incarcerated students. The incarcerated students in this study attend a technical college at one of the three campuses utilized in this study. These campuses serve incarcerated adults from men and women's state correctional facilities. The results of this study indicate that re-offense status, disability status, education, nor employment experience have an influence on dysfunctional career thinking. Dysfunctional career thinking was measured through the use of the Career Thoughts Inventory (CTI). The overall results of the were used in addition to the assessment's three construct score areas of, decision-making confusion, commitment anxiety, and external conflict, to measure levels of dysfunctional thinking in incarcerated students. Suggestions for future studies were discussed, including suggestions to investigate how the Covid-19 pandemic has changed these outcomes and including a mixed-methods research methodology in the future to gain more insight.

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Appendix A:

Auburn University Institutional Review Board (IRB) Exemption Letter

IRB/Office of Research Compliance
540 Devall Drive
Auburn University, AL 36832

AUBURN UNIVERSITY

Telephone: 334-844-5966
Fax: 334-844-4391
IRBadmin@auburn.edu
IRBsubmit@auburn.edu

April 13, 2021

MEMORANDUM TO: Abigail Holder
College of Education

PROTOCOL TITLE: "Career Thoughts of Incarcerated Students"

IRB FILE NUMBER: 21-154
IRB DETERMINATION: Non-human Subjects Research (NHSR)

Thank you for submitting your protocol to the Institutional Review Board for review. According to your description of this project and the intended use, the IRB has determined that your activities as described **do not constitute "human subjects research"** according to the existing guidelines and statutes (45 CFR 46.102).

> *Research* means a systematic investigation, including research development, testing and evaluation, designed to develop or contribute to generalizable knowledge. Activities, which meet this definition, constitute research for purposes of this policy, whether or not they are conducted or supported under a program, which is considered research for other purposes. For example, some demonstration and service programs may include research activities.
>
> *Human subject* means a living individual about whom an investigator (whether professional or student) conducting research obtains:
>
> (1) data through intervention or interaction with the individual, or
> (2) identifiable private information.

If there are any changes made which would constitute human subjects research, or if there are any events adverse or otherwise which concern the investigator(s), we encourage you to contact this office for further consultation.

If you have any questions, contact the Office of Research Compliance at irbsubmit@auburn.edu.

Bernie R. Olin, Pharm.D.
Chair of the Institutional Review Board #2
For the Use of Human Subjects in Research

Appendix B:

Informed Consent Document

AUBURN
UNIVERSITY

DEPARTMENT OF
SPECIAL EDUCATION,
REHABILITATION, AND COUNSELING

INFORMED CONSENT

For a Research Study entitled: *Career Thinking and Interest Among Incarcerated Adults*

You are invited to participate in a research study entitled *Career Thinking and Interests Among Incarcerated Adults* at Ingram State Technical College (ISTC) sites. The purpose of project is to explore your career interests, job matches, and career thinking. This study is being conducted by Danny Owes under the guidance of Dr. Peggy Shippen from Auburn University, Department of Special Education, Rehabilitation, and Counseling. We hope to learn what types of vocational interests inmates in a technical training school self-identify and provide you with a list of jobs to help guide your employment search after release. You were selected as a possible participant because you are enrolled at ISTC and have completed the surveys as part of an information session.

If you decide to participate, you will allow the researchers to use your survey results in our project. If you decide not to allow us to use your survey results, you will still receive the list of job matches indicated by your career interest type. Your total time commitment will be approximately 45-50 minutes. This vocational interest study may benefit you by helping you to see which jobs match your scores. However, no guarantee can be made that the survey results will represent the best fit for a future job. The Career Thoughts Inventory survey can inform the researcher of your level of career thinking. If you decide to participate, there will be no cost to you as this session is free and no compensation will be offered to you.

Your participation is voluntary. Your decision whether or not to participate will not jeopardize your current or future relations with Auburn University or the Department of Special Education, Rehabilitation, and Counseling or ISTC. 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. No information obtained in connection with this study will identify you. The survey data will be kept in a locked office at Auburn University. Information collected through your participation may be published in a professional journal, and/or presented at a professional meeting. If so, no personally identifiable information will be included. If you have questions about this study**,** *please ask them now.*

HAVING HEARD AND READ THE INFORMATION PROVIDED, YOU MUST DECIDE WHETHER OR NOT YOUR INFORMATION SUBMITTED MAY BE USED FOR RESEARCH. IN THE CHECK BOX BELOW, PLEASE INDICATE IF YOU WOULD LIKE YOUR INFORMATION TO BE USED IN RESEARCH BY COMPLETING THE SURVEYS.

Do not sign this form if it does not have the official AU stamp from the Institutional Review Board.

Participant Signature	Investigator obtaining consent
Participant Print Name	Print Name

Appendix C:

Demographic Questionnaire

Please indicate your sex/gender:

- □ Male
- □ Female
- □ Transgender

Please indicate your age group:

- □ 18 - 26
- □ 27 - 35
- □ 36 - 44
- □ 45 - 53
- □ 54 +

Please indicate your race:

- □ African American/Black
- □ Caucasian/white
- □ Hispanic/Latino
- □ Two or more
- □ Other

What is the highest grade in school that you completed?

- □ Elementary
- □ Middle school
- □ High school
- □ Completed high school
- □ GED

Is this your first-time in prison?

- □ Yes
- □ No

Do you have a disability?

- □ Yes
- □ No

Prior to incarceration, were you employed full time?

- □ Yes
- □ No

Appendix D:

Career Thoughts Inventory (CTI)

Career Thoughts Inventory™ (CTI™) Test Booklet

James P. Sampson, Jr., PhD
Gary W. Peterson, PhD
Janet G. Lenz, PhD
Robert C. Reardon, PhD
Denise E. Saunders, MS

This inventory has been developed to help people learn more about the way they think about career choices. Inside this booklet you will find statements describing thoughts that some people have when considering career choices. Please answer each statement openly and honestly as it describes you.

Directions:

Read each statement carefully and indicate the degree to which you agree or disagree with each item by circling the answer that best describes you. Do not omit any items.

SD = Strongly Disagree **D = Disagree** **A = Agree** **SA = Strongly Agree**

Circle **SD** if you strongly disagree with the statement.	(SD)	D	A	SA
Circle **D** if you disagree with the statement.	SD	(D)	A	SA
Circle **A** if you agree with the statement.	SD	D	(A)	SA
Circle **SA** if you strongly agree with the statement.	SD	D	A	(SA)

If you make a mistake or change your mind, DO NOT ERASE! Make an "X" through the incorrect response and then draw a circle around the correct response.

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98765 Reorder #RO-3434 Printed in the U.S.A.

Name _____ Date _____ Age _____ Sex _____

Ethnicity _____ Education (highest grade or degree completed) _____

1. No field of study or occupation interests me.	SD	D	A	SA
2. Almost all occupational information is slanted toward making the occupation look good.	SD	D	A	SA
3. I get so depressed about choosing a field of study or occupation that I can't get started.	SD	D	A	SA
4. I'll never understand myself well enough to make a good career choice.	SD	D	A	SA
5. I can't think of any fields of study or occupations that would suit me.	SD	D	A	SA
6. The views of important people in my life interfere with choosing a field of study or occupation.	SD	D	A	SA
7. I know what I want to do, but I can't develop a plan for getting there.	SD	D	A	SA
8. I get so anxious when I have to make decisions that I can hardly think.	SD	D	A	SA
9. Whenever I've become interested in something, important people in my life disapprove.	SD	D	A	SA
10. There are few jobs that have real meaning.	SD	D	A	SA
11. I'm so frustrated with the process of choosing a field of study or occupation I just want to forget about it for now.	SD	D	A	SA
12. I don't know why I can't find a field of study or occupation that seems interesting.	SD	D	A	SA
13. I'll never find a field of study or occupation I really like.	SD	D	A	SA
14. I'm always getting mixed messages about my career choice from important people in my life.	SD	D	A	SA
15. Even though there are requirements for the field of study or occupation I'm considering, I don't believe they apply to my specific situation.	SD	D	A	SA
16. I've tried to find a good occupation many times before, but I can't ever arrive at good decisions.	SD	D	A	SA
17. My interests are always changing.	SD	D	A	SA
18. Jobs change so fast it makes little sense to learn much about them.	SD	D	A	SA
19. If I change my field of study or occupation, I will feel like a failure.	SD	D	A	SA
20. Choosing an occupation is so complicated, I just can't get started.	SD	D	A	SA
21. I'm afraid I'm overlooking an occupation.	SD	D	A	SA
22. There are several fields of study or occupations that fit me, but I can't decide on the best one.	SD	D	A	SA
23. I know what job I want, but someone's always putting obstacles in my way.	SD	D	A	SA
24. People like counselors or teachers are better suited to solve my career problems.	SD	D	A	SA
25. Even though I've taken career tests, I still don't know what field of study or occupation I like.	SD	D	A	SA

Currently in school? ☐ Yes or ☐ No If yes, what grade or year?_____ Currently employed? ☐ Yes or ☐ No

If yes, current occupation_____ Years in current occupation _____

---

26. My opinions about occupations change frequently.	SD	D	A	SA
27. I'm so confused, I'll never be able to choose a field of study or occupation.	SD	D	A	SA
28. The more I try to understand myself and find out about occupations, the more confused and discouraged I get.	SD	D	A	SA
29. There are so many occupations to know about, I will never be able to narrow down the list to only a few.	SD	D	A	SA
30. I can narrow down my occupational choices to a few, but I don't seem to be able to pick just one.	SD	D	A	SA
31. Deciding on an occupation is hard, but taking action after making a choice will be harder.	SD	D	A	SA
32. I can't be satisfied unless I can find the perfect occupation for me.	SD	D	A	SA
33. I get upset when people ask me what I want to do with my life.	SD	D	A	SA
34. I don't know how to find information about jobs in my field.	SD	D	A	SA
35. I worry a great deal about choosing the right field of study or occupation.	SD	D	A	SA
36. I'll never understand enough about occupations to make a good choice.	SD	D	A	SA
37. My age limits my occupational choice.	SD	D	A	SA
38. The hardest thing is settling on just one field of study or occupation.	SD	D	A	SA
39. Finding a good job in my field is just a matter of luck.	SD	D	A	SA
40. Making career choices is so complicated, I am unable to keep track of where I am in the process.	SD	D	A	SA
41. My achievements must surpass my mother's or father's or my brother's or sister's.	SD	D	A	SA
42. I know so little about the world of work.	SD	D	A	SA
43. I'm embarrassed to let others know I haven't chosen a field of study or occupation.	SD	D	A	SA
44. Choosing an occupation is so complex, I'll never be able to make a good choice.	SD	D	A	SA
45. There are so many occupations that I like, I'll never be able to sort through them to find ones I like better than others.	SD	D	A	SA
46. I need to choose a field of study or occupation that will please the important people in my life.	SD	D	A	SA
47. I'm afraid if I try out my chosen occupation, I won't be successful.	SD	D	A	SA
48. I can't trust that my career decisions will turn out well for me.	SD	D	A	SA

Directions: Write the raw scores for CTI Total, DMC, CA, and EC in the spaces beneath the appropriate profile. Circle each raw score on the profile. Then draw lines connecting DMC, CA, and EC.

Profile for Adults

	Raw scores				
T score	CTI Total	DMC	CA	EC	%ile
≥80	102–144	29–42	26–30	10–15	>99
79	100–101			9	>99
78	98–99	28	25		>99
77	95–97	27	24		>99
76	93–94				>99
75	91–92	26	23		99
74	89–90	25		8	99
73	87–88	24	22		99
72	84–86				99
71	82–83	23	21		98
70	80–81	22			98
69	78–79		20	7	97
68	75–77	21	19		96
67	73–74	20			96
66	71–72		18		95
65	69–70	19			93
64	67–68	18	17	6	92
63	64–66	17			90
62	62–63		16		88
61	60–61	16			86
60	58–59	15	15	5	84
59	56–57				82
58	53–55	14	14		79
57	51–52	13	13		76
56	49–50				73
55	47–48	12	12	4	69
54	45–46	11			66
53	42–44	10	11		62
52	40–41				58
51	38–39	9	10		54
50	36–37	8		3	50
49	34–35		9		46
48	31–33	7	8		42
47	29–30	6			38
46	27–28		7	2	34
45	25–26	5			31
44	22–24	4	6		27
43	20–21	3			24
42	18–19		5		21
41	16–17	2		1	18
40	14–15	1	4		16
39	11–13				14
38	9–10	0	3		12
37	7–8		2		10
36	5–6			0	8
35	3–4		1		7
34	0–2				5
33			0		4
32					4
31					3
30					2
29					2
28					1
≤27					1

Raw scores

Profile for College Students

	Raw scores				
T score	CTI Total	DMC	CA	EC	%ile
≥80	109–144	33–42	29–30	10–15	>99
79	107–108				>99
78	105–106	32	28		>99
77	103–104	31			>99
76	101–102	30	27	9	>99
75	99–100	29			99
74	97–98		26		99
73	95–96	28	25		99
72	92–94	27		8	99
71	90–91	26	24		98
70	88–89				98
69	86–87	25	23		97
68	84–85	24			96
67	82–83	23	22	7	96
66	80–81				95
65	78–79	22	21		93
64	76–77	21			92
63	74–75	20	20		90
62	72–73			6	88
61	69–71	19	19		86
60	67–68	18			84
59	65–66		18		82
58	63–64	17	17	5	79
57	61–62	16			76
56	59–60	15	16		73
55	57–58				69
54	55–56	14	15		66
53	53–54	13		4	62
52	51–52	12	14		58
51	49–50				54
50	46–48	11	13		50
49	44–45	10		3	46
48	42–43	9	12		42
47	40–41				38
46	38–39	8	11		34
45	36–37	7	10		31
44	34–35	6		2	27
43	32–33		9		24
42	30–31	5			21
41	28–29	4	8		18
40	26–27	3			16
39	23–25		7	1	14
38	21–22	2			12
37	19–20	1	6		10
36	17–18				8
35	15–16	0	5	0	7
34	13–14				5
33	11–12		4		4
32	9–10				4
31	7–8		3		3
30	5–6		2		2
29	3–4				2
28	1–2		1		1
≤27	0		0		1

Raw scores

Profile for High School Students

	Raw scores				
T score	CTI Total	DMC	CA	EC	%ile
≥80	110–144	33–42	27–30	11–15	>99
79	108–109	32		10	>99
78	106–107		26		>99
77	104–105	31			>99
76	102–103	30	25		>99
75	100–101				99
74	97–99	29	24	9	99
73	95–96	28			99
72	93–94		23		99
71	91–92	27			98
70	89–90	26	22		98
69	87–88	25		8	97
68	85–86		21		96
67	83–84	24			96
66	81–82	23	20		95
65	79–80			7	93
64	77–78	22	19		92
63	75–76	21			90
62	73–74	20	18		88
61	71–72				86
60	69–70	19	17	6	84
59	67–68	18			82
58	65–66		16		79
57	63–64	17			76
56	61–62	16	15		73
55	59–60			5	69
54	56–58	15	14		66
53	54–55	14			62
52	52–53	13	13		58
51	50–51			4	54
50	48–49	12	12		50
49	46–47	11			46
48	44–45		11		42
47	42–43	10			38
46	40–41	9	10	3	34
45	38–39				31
44	36–37	8			27
43	34–35	7	9		24
42	32–33	6			21
41	30–31		8	2	18
40	28–29	5			16
39	26–27	4	7		14
38	24–25				12
37	22–23	3	6	1	10
36	20–21	2			8
35	18–19	1	5		7
34	15–17				5
33	13–14	0	4		4
32	11–12			0	4
31	9–10		3		3
30	7–8				2
29	5–6		2		2
28	3–4				1
≤27	0–2		0–1		1

Raw scores