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Factors Related To Academic Gains For Adult Learners In A Correctional Education Program

Maria Deanne Sells
Indiana State University

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VITA

Maria D. Sells is currently employed as the Principal of Morton Memorial School located on the grounds of the Indiana Soldiers' and Sailors' Children's Home in Knightstown, Indiana. Prior to her current position, Mrs. Sells was employed by the Indiana Department of Correction. During the five years employed by the Indiana Department of Correction, Mrs. Sells was the Coordinator of Special Education at the Central Office level and then later at the Pendleton Correctional Facility.

Mrs. Sells attained a Bachelor of Science Degree from Ball State University in Secondary Education with a major in Social Studies in May 1990. In 1996, Mrs. Sells received a Master of Arts Degree in Special Education at Ball State University. In addition to these degrees, Mrs. Sells holds licensure in the areas of Administration and Supervision as an Elementary Principal, Secondary Principal, and Director of Special Education.

Mrs. Sells has been a member of many professional organizations, including the American Association of School Administrators, Association for Supervision and Curriculum Development, Council for Exceptional Children, and the Indiana Council for Administrators in Special Education. In addition, Mrs. Sells has been an active member in Optimist International and the New Castle Breakfast Optimist Club.

FACTORS RELATED TO ACADEMIC GAINS FOR ADULT LEARNERS IN A
CORRECTIONAL EDUCATION PROGRAM

A Dissertation

Presented to

The School of Graduate Studies

Department of Education Leadership, Administration, and Foundations

Indiana State University

Terre Haute, Indiana

In Partial Fulfillment

of the Requirements for the Degree

Doctor of Philosophy

by

Maria D. Sells

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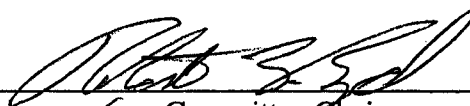
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APPROVAL SHEET

The dissertation of Maria D. Sells, Contribution to the School of Graduate Studies, Indiana State University, Series III, Number 947, under the title *Factors Related to Academic Gains for Adult Learners in a Correctional Education Program* is approved as partial fulfillment of the requirements for the Doctor of Philosophy Degree.

4-18-03

Date



Committee Chairperson



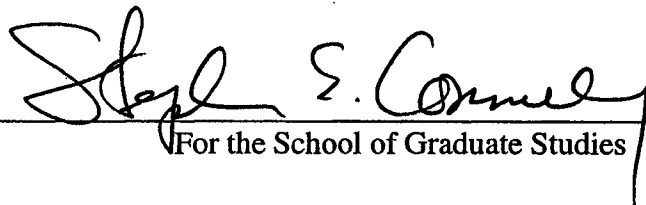
Committee Member



Committee Member

4/25/03

Date



For the School of Graduate Studies

ABSTRACT

Education programs within the Indiana Department of Correction are evaluated on the number of student to teacher contact hours provided, the number of students enrolled and the number of students promoted or graduated from each program. Since each facility develops its own program design for education, it is important for each program to evaluate the effectiveness of the program design based on the individual program goals and objectives. The purpose of this study was to investigate the relationships among program placement, motivational time factors (i.e., age, length of sentence, time served, earliest possible release date, and time cut eligibility) and academic gains in reading and math skills for adult learners at the Pendleton Correctional Facility.

A stepwise multiple regression analysis was conducted to predict if there is a relationship among program placement, motivational time factors (i.e., age, length of sentence, time served, earliest possible release date, and time cut eligibility) and academic gains in reading and math skills for adult learners at the Pendleton Correctional Facility. Academic gains in reading and math were the dependent variables with program placement and motivational time factors being the independent variables.

It was found that program placement was a significant predictor of academic gains in reading and math skills for the adult learners at the Pendleton Correctional Facility. It was also found that motivational time factors (i.e., age, length of sentence, time served, earliest possible release date, and time cut eligibility) were not significant

predictors of academic gains in reading and math skills for adult learners at the Pendleton Correctional Facility.

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CHAPTER 1

INTRODUCTION

Concern over crime rates in recent years has led many people to support the increased use of incarceration and longer sentences for offenders. This has resulted in a doubling of the national prison population over the past decade (Hull, Forrester, Brown, Jobe, & McCullen, 2000). Recent reports from the Bureau of Justice Statistics indicate that over 1.6 million individuals are incarcerated in adult prisons in the United States (Gilliard & Beck, 1997). The estimated annual expense of housing these offenders is over \$45 billion, not including the costs of new facility construction or aftercare programs (Jancic, 1998). Overcrowding and strained resources have forced correctional systems to evaluate the effectiveness and viability of programs being provided for offender populations as has happened several other times over the history of prison systems in the United States (Brooks, 1992).

Correctional education is only one of many programs considered rehabilitative in nature that has been available to individuals incarcerated in prisons throughout the United States (Kirshstein & Best, 1997). When looking at the challenges and changes in correctional education, Hackman (1997) wrote, "While the public seems concerned about

tax dollars spent on educating inmates, most do not realize that every dollar spent on education is returned in public safety, employment, and recidivism reduction” (p. 74).

Another proponent writes,

“Even if educating inmates did not reduce recidivism, it would still be a valuable investment for taxpayers because inmates who are in school programs are happier and behave better, thereby making the prison a safer place for employees and inmates alike as well as saving tax dollars which would be spent on riots...if the education programs did not exist.”

(Correctional Education Connections, 1999, p. 2)

In order for correctional systems to make decisions about funding for correctional education programs, we need to know more about what is working in the educational programs.

Past studies on effectiveness of correctional education programs have focused on recidivism rates, effective instructional strategies, and motivating factors for offender participants. Recidivism rates have been the main focus of studies in correctional education (Kirshstein & Best, 1997). Cecil, Drapkin, Layton, Mackenzie, and Hickman (2000) conducted an analysis of 12 adult basic education programs within correctional settings measuring effectiveness of the programs based on recidivism rates. The findings of this analysis indicated that the adult basic education programs showed promise for decreasing recidivism and that the end result of increased educational level should be reduced recidivism rates (Cecil et al.). The Ohio Department of Rehabilitation and Corrections conducted a study in 1995 concluding that GED graduates and GED program participants had lower recidivism rates than did the general population and that adult

basic education programs were especially well suited for offenders serving long prison terms. Adams et al. (1994) attempted to determine the amount of participation in correctional educational programs needed to trigger beneficial effects in terms of reducing recidivism rates. They found that offenders spending between 100-300 hours in the program recidivated at a rate of approximately 21% and those participating more than 300 hours recidivated at a rate of approximately 16% versus the non-participant rate of approximately 24% (Adams et al., 1994). Harer (1995a) studied the possible effects of the offender's initial educational level upon entering the educational program on recidivism rates. Later, Harer conducted a follow-up study in 1995 with a different sample. Both of Harer's studies indicated that as an individual's initial education level went up, the recidivism rates went down. All of the recidivism rates for offenders participating in education programs, regardless of their initial educational level, were lower than the recidivism rates for offenders not participating in educational programs (Harer, 1995a; Harer, 1995b).

Hull, Forrester, Brown, Jobe, and McCullen (2000) conducted a study initiated by the Superintendent of the Virginia Department of Correction Education Programs designed to assess the impact of the correctional education program on recidivism. Three thousand offenders released between 1979 and 1994 were assessed for recidivism and employment status (Hull et al.). It was found that those offenders completing an academic program recidivated at a rate of 19%, and 77% were employed, while non-participants recidivated at a rate of 49% and only 54% were employed (Hull et al.).

Some research has started to surface that provides a focus on motivating factors for correctional education students. Jenkins (1994) and Thomas (1992) identified general

motivating factors for offender participation in correctional education programs as sentence reductions, preferential prison employment, pay for school attendance, and grants for higher education programs. Worley and Schuster (1997) focused on student motivation to learn and found that motivation increased when the student was provided choices for learning and when his/her preferences were honored. Kuster (1998) found that students were motivated to learn through goal setting and continual feedback.

Another focus for correctional education research has been on effective correctional education practices. Levin (1994) found that the most effective correctional education strategies have to do with treating students as capable individuals, capitalizing on strengths and interests, and involving them in goal setting. Kuster (1998) found that setting high expectations, encouraging mutual respect, creating a positive learning environment, collaboration between the teacher and student, and improving student accountability through continual assessment and goal setting were the most effective practices for academic success within the correctional education setting. Steurer (2000) focused on educational advancement of literacy-level students as the measure of effectiveness in his study of a peer tutoring program in Maryland and found that literacy students gained about 3 months in reading skill level for every month of instruction.

Despite the fact that reducing recidivism is the most researched and desired correctional education program outcome for political and budgetary purposes, measuring recidivism rates does not provide educationally relevant information on the effectiveness of an education program (Kerka, 1995). There are other measures of impact that can provide measures of effective educational programs that can be more beneficial to the correctional education professional. Kirshstein (1997) suggests that measuring academic

gains, behavioral changes, early release savings, and employment rates are some options for researching effective correctional education programs. Steurer (2000) states that “the central measure of the effectiveness of any educational program is the educational advancement of students” (p. 167).

Before assessing the effectiveness of an educational program, it is important to understand the framework under which the program operates. This means that in order to assess an adult education program within a correctional setting, it is important to have a basic understanding of Adult Learning Theory.

Malcolm Knowles (1970) provides us with a psychological orientation to adult learning theory. He asserts that adults have extensive reservoirs of experience that affect their learning and that adults want some control over their learning process. In addition, Knowles (1970) suggests that adults tend to move from a state of dependency to being self-directed in learning.

Paulo Freire (1970) offers a social orientation to adult learning theory. He asserts that education is not just the neutral, technical transfer of information from one person to another, but is a process of developing critical consciousness and critical-thinking skills. He describes literacy acquisition as an empowering process for adults and believes that education should not foster dependency.

Both of these orientations focus on maximizing learner involvement in all dimensions of the adult learning process. The adult learning process is defined by three processes in which the student and teacher work together to jointly clarify the intent, check progress and process, and evaluate outcomes. The intent of the learning process is clarified through a learner needs assessment which leads to identifying learning

objectives, instructional methods, and materials to best meet the student needs. The progress and process of the learning process is checked through continuous monitoring of student progress. On-going student assessment provides information for the student and teacher to make adjustments in curriculum, methodology, or learning style. Outcomes are evaluated in a variety of ways which could lead the learner to continue personal growth and learning.

The principles of adult learning theory and the adult learning process are in place within the educational programs at the Pendleton Correctional Facility. In order to make decisions about the effectiveness of the program design and implementation, it is important to gather more information on the relationship between the amount of direct student to teacher contact time provided within the program placement options and academic gains. It is also important to discover if any other factors such as age, length of sentence, time served, earliest possible release date, and time cut eligibility are related to academic gains made by students within the education program. Therefore, the purpose of this study was to investigate the relationships among program placement, motivational time factors (i.e., age, length of sentence, time served, earliest possible release date, and time cut eligibility) and academic gains in reading and math skills for adult learners at the Pendleton Correctional Facility.

Statement of the Problem

Currently, education programs within the Indiana Department of Correction are evaluated on the number of student to teacher contact hours provided, the number of students enrolled and the number of students promoted or graduated from each program.

Since each education program is unique, based on facility differences and resources available, it is important to evaluate each individual program in order to make decisions about changes that are needed. Since each facility develops its own program design for education, it is important for each program to evaluate their own program design based on the program goals and objectives.

Steurer (2000) states that “the central measure of the effectiveness of any educational program is the educational advancement of students” (p. 167). The education staff at the Pendleton Correctional Facility believes that academic advancement of students is an important measure of effectiveness within the program. Currently, the Pendleton Correctional Facility does not have a mechanism in place to assess the effectiveness of the educational program based on academic gains. In order to make decisions at the Pendleton Correctional Facility about the effectiveness of the education program design and implementation, it is important to gather more information on the relationship between the amount of direct student to teacher contact time provided within the program placement options and academic gains. It is also important to discover if any other factors such as age, length of sentence, time served, earliest possible release date, and time cut eligibility are related to academic gains made by students within the education program. Therefore, the purpose of this study was to investigate the relationships among program placement, motivational time factors (i.e., age, length of sentence, time served, earliest possible release date, and time cut eligibility) and academic gains in reading and math skills for adult learners at the Pendleton Correctional Facility.

Research Questions

Is there a relationship among program placement, motivational time factors (i.e., age, length of sentence, time served, release date, and time cut eligibility) and academic gains in reading skills for adult learners at the Pendleton Correctional Facility?

Is there a relationship among program placement, motivational time factors (i.e., age, length of sentence, time served, release date, and time cut eligibility) and academic gains in math skills for adult learners at the Pendleton Correctional Facility?

Null Hypothesis

There is no significant relationship among program placement, motivational time factors (i.e., age, length of sentence, time served, release date, and time cut eligibility) and academic gains in reading skills for adult learners at the Pendleton Correctional Facility.

There is no significant relationship among program placement, motivational time factors (i.e., age, length of sentence, time served, release date, and time cut eligibility) and academic gains in math skills for adult learners at the Pendleton Correctional Facility.

Significance of the Study

Currently, education programs within the Indiana Department of Correction are evaluated on the number of student to teacher contact hours provided, the number of students enrolled and the number of students promoted or graduated from each program. Since each education program is unique, based on facility differences and resources

available, it is important to evaluate each individual program in order to make decisions about changes that are needed. Since each facility develops its own program design for education, it is important for each program to evaluate their own program design based on the program goals and objectives. In order to make decisions at the Pendleton Correctional Facility about the effectiveness of the education program design and implementation, it is important to gather more information on the relationship between the amount of direct student to teacher contact time provided within the program placement options and academic gains. It is also important to discover if any other factors such as age, length of sentence, time served, earliest possible release date, and time cut eligibility are related to academic gains made by students within the education program. Therefore, the purpose of this study was to investigate the relationships among program placement, motivational time factors (i.e., age, length of sentence, time served, earliest possible release date, and time cut eligibility) and academic gains in reading and math skills for adult learners at the Pendleton Correctional Facility.

Limitations

Limitations of this research, and the project design of many previous research projects in this field, includes a lack of a true control group. These studies tend to be of a single group, comparative in nature and do not fit the qualifications of experimental or quasi-experimental designs. This is mainly due to the fact that in most state correctional systems like in Indiana, participation in education programs is voluntary.

A second limitation in the study is the amount of mobility and turnover in the offender population. Many times students are moved out of the program due to a facility

transfer, release, or placement on idle status due to conduct. This means that the education program collects initial assessment data but cannot collect posttest information to demonstrate academic gains.

Delimitations

One delimitation within this study is time boundaries. Assessment data was collected for offenders participating in the educational program between July 1999 and June 2002. Another delimitation was to include only students completing a pre- and posttest assessment as part of the population to study.

Assumptions

It is assumed that the more involvement an offender has in his academic studies, the more likely he is to experience academic gains. This is not to assume that those in the program placement consisting of 15 hours of student to teacher contact per week will demonstrate academic gains and those in the program placement consisting of less than an hour per week will not. It is to say that those individual students who actively participate in their educational program and study independently when not in the classroom setting will demonstrate academic gains in reading and math scores regardless of program placement.

Definition of Terms

Academic gains in reading and math were measured through quarterly assessments using the Test of Adult Basic Education (TABE). The TABE is a

standardized test norm referenced for adult education students and offenders. The results of standardized tests are given in grade equivalencies, which although recommended against by researchers, continues for political reasons.

Motivational time factors as defined by this study included age, length of sentence, time served, earliest possible release date, and eligibility of a time cut for education completion. Age was determined as the age at which the student first enrolled in the education program. Length of sentence was defined as the actual sentence received by the offender in terms of years. Time served was defined as the number of years served on the sentence as of the enrollment date. The earliest possible release date was determined through the calculations completed by the classification department as part of the Offender Information System (OIS). Offenders completing a General Educational Development (GED) program within the Indiana Department of Correction are eligible for a time cut when they meet the requirement of being in Credit Class 1 for a year prior to completion. A time cut equates to 6 months off of the original sentence for a GED completion. Credit Classification is determined by the classification department and is based on offender behavior. For example, Credit Class 1 indicates that the student has not received any major disciplinary actions or reports for at least one year and is earning one day off of his sentence for each good day served.

Program placement conditions were defined by a student's placement within the education program. Placement within the education program was determined by the student's housing assignment within the facility. There were three possible education program placements that by nature vary in instructional methodology and direct teacher to student instructional time.

The first and most prominent education program placement possibility was the on-site school program. Students housed inside the maximum-security level facility in a dorm or job eligible cell house were eligible to attend the on-site school program. This program was offered in a traditional school setting where students participate in classrooms offering large group, small group, and individual instruction. Students enrolled in the on-site school program participated in classes fifteen hours per week.

A second education program placement possibility was offered to students placed in the minimum-security level dorm located outside of the main prison facility. Offenders housed in the outside dorm participated in classes two nights per week for a total of six hours per week. Students worked with a teacher during the six hours in a small classroom setting and participated in large group, small group, and individual instruction.

The third education program placement possibility was offered to students housed in lock-up units within the maximum-security level main prison facility. These students were placed in lock up units either for disciplinary or protective purposes. Individual instruction was provided to these students at the cell door. Students met with an instructor for less than one hour per week and then completed assignments as independent study. Offender tutors were available within these housing units to answer questions in-between the instructor's visits.

Recidivism was generally defined as the rate at which individuals released from incarceration return to incarceration for committing additional crimes.

CHAPTER 2

REVIEW OF THE LITERATURE

Historical Analysis of Correctional Education

The purpose of correctional education has continually evolved to correspond with the social context of the time period. The three distinctive periods of correctional education presented here are the *Grass Roots Era* 1798 through 1869, the *Age of Prison Reform* 1870 through 1969, and the *Tough on Crime Era* 1970 through 1999.

The ideology of corrections during the “grass roots era” period was that criminals were morally corrupt individuals unworthy of humane treatment. The goal of the correctional system was to improve society by taking criminals off the street. During this time period, the primary objective of the correctional system was to confine and punish offenders. Stemming from the beliefs of the time that criminals were morally corrupt and would be better citizens if they were disciplined in religion, there was a push from religious groups to provide religion based education in an effort to impart religious beliefs on offenders (Roberts, 1971).

In 1798, the first prison school in America was founded at Philadelphia’s Walnut Street Jail by the Quakers (Brooks, 1992). The Quakers believed that even the most

hardened criminal could be reformed and they changed the jail from “merely a place of confinement” to a place of “penitence, education, and labor” (Brooks, p. 3).

In 1825, the Boston Prison Discipline Society was created and was dominated by a zealous religious leader, Louis Dwight (Roberts, 1971). Dwight and his followers focused on the imparting of religious beliefs on offenders through the use of Sabbath schools and enforced silence (e.g., Auburn system). In the Auburn system, offenders had the choice of remaining in their cells on Sunday mornings or being taken to the chapel where chaplains would teach illiterate offenders to read the Bible (Roberts). Prior to 1845, the only instruction received by offenders in the state of Maryland, was the reading of the Bible in the offender’s cell and at Sabbath Schools in the chapel (Roberts). Even though these educational services were religious in nature, they still provided for the beginning stages of correctional education and the offenders were more aptly prepared for successful reintegration to society.

The success of Sabbath Schools led to an increase in resources being provided for correctional education programs focusing on academic instruction for illiterate offenders. In 1846, the a warden in the state of Maryland established a Sunday School in which offenders with no education could be taught basic reading and math by correctional staff following church services (Roberts, 1971). In 1847, New York State Law provided for appointment of two teachers for each of their two state prisons, becoming the first legal recognition of a need for academic education in correctional facilities. However, the teachers could only pass occasionally from cell to cell as the chaplains before them had done and periods between their visits were so long that the value of the services were questionable (Roberts). In 1867, the Massachusetts state legislature appropriated

\$1000.00 for the purchase of textbooks to teach illiterate offenders in semi-weekly classes at the Massachusetts state prison at the request of the prison's warden (Roberts).

In conclusion, the "grass roots era" of correctional education consisted of the most basic and meager forms of education. During most of this period, the extent of education consisted almost entirely of moral and religious instruction at the cell door or in the chapel on Sunday. Late in the period, a very few resources were provided to begin basic academic instruction at the cell door of offenders with little to no education.

Until 1870, the focus of corrections was on confinement and punishment and any rehabilitation that took place was achieved informally as a result largely of religious training (Brooks, 1992). Then came the "age of prison reform" and the ideology of corrections shifted. The ideology of corrections during this period was that offenders are individuals who have specific needs that if not met while incarcerated will continue to lead a life of crime. The goals of the correctional systems of this time period were to improve or reform society and develop human capital by providing for offender needs through various programming and treatment efforts.

In 1870, the American Prison Association was formed and the first congress of the association adopted a Declaration of Principles which began the Prison Reform Movement (Roberts, 1971). The 33 principles were unique in that they integrated behavioral science and education into the process of rehabilitation (Brooks, 1992). The adoption of these principles demonstrated the need for change in the purpose of the correctional system from confinement and punishment to confinement and rehabilitation.

In 1876, the first reformatory was opened at Elmira, New York, with the first prison school to focus on education without a religious orientation (Roberts, 1971). The

warden at Elmira gave education an important place in the correctional process by collaborating with a neighborhood college. Elmira's school provided educational services six nights a week in a classroom setting with one instructor from the college and specially selected offender instructors. Within a few years, Elmira's education program extended to hiring nine full-time professional instructors and offering classes in elementary instruction, advanced studies, and religion-ethics-psychology (Roberts). In 1886, Elmira opened the first vocational trade school as part of its education program (Brooks, 1992). In the early 1900's reformatories were opened throughout the country and most of the reformatories established in these years were patterned after Elmira (Roberts).

In early 1927, the American Association for Adult Education recommended that a study be conducted of the nation's prison education programs. Following this recommendation, a grant was provided by the Carnegie Corporation to the National Society of Penal Information, Inc. for a study of educational and library work in prisons and for the formulation of a program that might be adopted as a standard for correctional education programs (MacCormick, 1931). Despite the reforms made in correctional education programs throughout the early 1900's, the survey of all prisons and reformatories in the United States conducted by Austin MacCormick in 1927-1928 revealed that these programs were far from adequate. The survey concluded that correctional education had failed for many reasons: a lack of clear goals, a tendency to adhere too rigidly to public school methods, a failure to individualize programs, and poor teaching. But, the number one reason found as to why correctional education programs had failed was due to a lack of support and funding. MacCormick stated, "The

educational work in the penal institutions of the country was found to be so limited that the writer soon realized that the major part of his task was not to record what was being done, but to formulate a workable program, indicating what might be done with adequate financial support and competent personnel” (p. ix).

MacCormick (1931) concluded that the philosophy of correctional education was to consider an offender primarily as an adult student in need of an education first and as an offender in need of reform second. He asserted that the aim of correctional education was to extend to individual offenders every type of educational opportunity that might be of benefit to them in hopes that they might be better equipped to be successful members of society.

In response to this study, there was widespread educational reform in correctional facilities throughout the United States (Brooks, 1992). The 1930's were marked by two significant developments regarding correctional education: the recognition that education is an essential program component for treatment and the belief that such education should be of the same type and quality of effective adult education programs found in society (Roberts, 1971). This was also a time when many state prisons established relationships with state education departments (Brooks).

Correctional education reform continued using the recommendations of the MacCormick survey over the next several decades. Then during the 1950's some of the criminological theories of the past decades were beginning to be applied in program planning and development (Roberts, 1971). The concept of re-socialization of offenders focused not only on academic and vocational skills but more so on changing offenders' antisocial behaviors, beliefs, and values into more socially acceptable frameworks.

Throughout the 1950's and 1960's more comprehensive correctional education programs were developed in which high standards and diversified academic programs that contributed to offender growth and reintegration into society were of primary focus. In addition, the focus on offender individuality led to treatment oriented correctional systems, which had education as a key component. However, even though education was employed with increasing frequency throughout correctional systems, many plans for improvements and expansions in correctional education were never realized because essential funds were never provided (Roberts).

The "tough on crime" era marked a time period when the ideology of corrections shifted back to the idea of retribution. The ideology of this time period was that no matter what is provided for offenders while incarcerated, they would never be able to live successfully in society without committing crime. The goal of corrections during this time period was to improve society by taking offenders off the street and locking them up for long periods of time.

The 1970's marked a distinctive change in the philosophy of correctional systems, which had a devastating blow to the rehabilitative efforts of the past. The 1970's was a period in time when many prison systems were facing serious problems in terms of overcrowding, a lack of resources, little support, and understaffing which all led to major riots and uprisings of destructive behaviors on the part of offenders living in these conditions. In 1974, Martinson published the results of a research team's analysis of 231 studies conducted between 1945 and 1967 of correctional treatment programs which included education. What was devastating was that Martinson concluded that few if any of the rehabilitative programs reviewed had any effect on recidivism rates (Martinson).

Martinson's study received significant attention and publicity. In 1979, Martinson discovered a major flaw in his earlier research and conducted a second study rebuking his earlier claims. Unfortunately, Martinson's later results were ignored (Jancic, 1998; Brooks, 1992).

By the mid 1980's Congress passed the Sentencing Reform Act of 1984 as part of the 1984 Comprehensive Crime Control Act (Brooks, 1992). This act abolished parole for federal prisoners (Brooks). In addition, rehabilitative models were never given a fair chance in the 1970's and 1980's because even when there was public confidence in rehabilitative efforts, lack of funding caused programs to be ineffective (Brooks).

Even though the retributive theories of punishment were adopted by the correctional system in the 1970's and 1980's, rehabilitation was not dropped as a goal of the correctional system. Rather, the correctional system maintained a belief in vocational training and academic programs (Brooks, 1992).

In the 1990's, drug-related crimes increased and society reacted angrily and supported the "tough on crime" retribution model as the sole purpose of corrections (Brooks, 1992). Unfortunately, the general public did not take into consideration that most offenders re-enter the community, taking with them the problems that prison fosters such as antisocial behavior, anger, diminished job prospects, and weaker family ties (Brooks).

Harsher sentences, the "tough on crime" attitude, and reduction of support for programming alternatives proved to be a dangerous combination evidenced by a troubled correctional system plagued by riots and unrest in the 1980's (Brooks, 1992). Conditions

of the correctional system during this time period lead to a re-evaluation of what worked in reducing crime and unrest within the system itself.

In order to meet the increasing demands of the numbers and diversification of offenders entering the prison system during this time period, correctional education programs began to develop a broader definition of purpose. By the 1990's, correctional education programs included literacy programs, adult basic education, vocational education, job preparation programs, transitional programs, and special education programs (Steurer, 2000). In addition, more literacy programs were incorporating an increase in the use of offender tutors to reach more students (Steurer).

The problems faced by correctional education programs during this period include a lack of consistency in participation, quality or quantity. Power within the correctional system was also an issue when prison officials tried to use education as a way to control offenders (Brooks, 1992). Along with these problems, correctional education suffered simply as a result of being within correctional systems that were lacking funding, social and political support, resources, space, staff, materials, and supplies in general (Brooks).

Currently, there are many inhibiting factors continuing to face correctional education programs in the United States. Most correctional facilities offer some form of basic literacy, General Educational Development (GED) preparation and some vocational training but there continues to be no consistency in participation, quality, or quantity (Brooks, 1992). Nationally, only 9% of offenders are enrolled in basic education courses and 7% of offenders are enrolled in GED preparation courses (Brooks). Participation levels vary due to the number and types of programs available, offender characteristics, and levels of support for such programs.

Prison systems at the state level are faced with many constraints that effect the level of participation in correctional education programs. Besides the problems caused by overcrowding, correctional education programs must continue to contend with problems arising from inadequate funding, equipment and supplies (Brooks, 1992). The uniqueness of the prison culture including routines such as head counts, lock downs, hearings or legal meetings, and movement issues all compound the problems faced by the education programs within the prison system. "Increased prison violence has made 'lockdowns' more common, thus keeping inmates in their cells, and out of correctional education classes, for days or even weeks at a time" (Brooks, p. 5).

A more serious constraint is conflicting beliefs about education within the goals of the correctional system, education is secondary to security (Brooks, 1992). Correctional systems have to find a balance between the amount of security needed to protect the public from the offenders inside the prison walls and the amount of programming needed to allow the offenders to acquire the skills needed to effectively live in society after release. Most social and political figures do not take into account the fact that no matter how tough sentences are, most offenders will be released back into society so programs such as education are the only way to be tough on future crime.

Even though there are obstacles for correctional education programs to face, many agree with the statement that, "All correctional education has value, because it provides inmates the opportunity to learn skills and develop their intellect" (Brooks, p. 6). For many years individuals have presented the idea that correctional education programs are essential for rehabilitation efforts. In 1931, MacCormick wrote, "Education is not that single formula for the solution of crime" but "education offers one of the very real hopes

for rehabilitation” (p. 2). More recently, Brooks (1992) contended that, “Education is the key to rehabilitation because it gives inmates the tools to deal with personal and societal issues that often lead to criminal behavior” (p. 6).

As the purpose of our correctional system shifted philosophically from rehabilitation to retribution the importance of correctional education has lessened and the goals of correctional education have become blurred. There has always been a close relationship between rehabilitation and correctional education programs. Shifts in political and societal sentiments about the importance and value of rehabilitation have forced changes in correctional education programming or have forced such programs into non-existence. Even though correctional education programs have faced the same types of obstacles throughout the history of such programs, they have been able to continually evolve to meet the needs of offenders, facilities, and the societal and political pressures of the time.

Correctional Education Programs Justified Need

Concern over crime rates in recent years has led many people to support the increased use of incarceration and longer sentences for offenders. This has resulted in a doubling of the national prison population over the past decade (Hull et al., 2000). Recent reports from the Bureau of Justice Statistics indicate that over 1.6 million individuals are incarcerated in adult prisons in the United States (Gilliard & Beck, 1997). The estimated annual expense of housing these offenders is over \$45 billion, not including the costs of new facility construction or aftercare programs (Jancic, 1998). Overcrowding and strained resources have forced correctional systems to evaluate the

effectiveness and viability of programs being provided for offender populations as has happened several other times over the history of prison systems in the United States.

Correctional education is only one of many programs considered rehabilitative in nature that have been available to individuals incarcerated in prisons throughout the United States. In 1798, the first prison school was founded in Philadelphia and focused on religious training (Brooks, 1992). The focus of correctional education shifted from religion to basic educational skill improvement in the period between 1876 and 1930 (Brooks). In 1931, *The Education of Adult Prisoners: A Survey and a Program* was published by the National Society of Penal Information (MacCormick, 1931). This publication was written by Austin MacCormick, the Assistant Director of the U.S. Bureau of Prisons and was based on the findings from an extensive survey of U.S. correctional facilities. The work detailed an ideal model of an effective correctional education program that continues to be viewed as relevant today (Hunsinger, 1997). This publication resulted in widespread correctional education reform where the focus of programs came to be the improvement of offender literacy skills and recognition of individual student needs (Brooks).

During the 1950's the focus on offender individual needs stirred a change in the correctional system. This change led to a focus on developing programs to meet behavioral and social needs of offenders rather than focusing on academic and vocational needs (Brooks, 1992). In the 1960's the "medical model of corrections" was prominent whereby offenders were considered to be ill and in need of treatment for a cure. During this period of time, many programs were developed to meet the psychological and

emotional needs of offenders. This model proved to be problematic in that if an offender were not ill, he could not be cured and therefore would remain incarcerated (Brooks).

Due to problems with the medical model and a lack of consistency in the sentencing structure the 1970's brought about a push to change the goal of the correctional system in the United States from rehabilitation to punishment or retribution (Brooks, 1992). Fanning the flames of this push to retribution from rehabilitation was a finding by a prominent researcher in the field of corrections. In 1974, Martinson published the results of an analysis of over 200 studies of correctional treatment programs conducted between 1945 and 1967 (Brooks). Six of the studies analyzed were academic and vocational in nature. Martinson concluded that few if any of the rehabilitative programs reviewed had any effect on recidivism rates (Martinson, 1974). Martinson's study received a great deal of attention and served to change the shift of perceptions of the goal of corrections from rehabilitation to punishment.

Later it was discovered that there had been a research flaw in the design of Martinson's study. In 1979, Martinson wrote "Contrary to my previous position, some treatment proponents do have an appreciable effect on recidivism . . . new evidence from our current study leads me to reject my original conclusion . . . the evidence in our survey is simply too overwhelming to ignore" (Martinson, 1979, p. 224). Even though he rebuked his earlier findings and withdrew his claim that rehabilitative programs were ineffective in reducing recidivism rates, the damage had been done and these second findings were ignored (Jancic, 1998; Brooks, 1992).

In the 1970's and 1980's the general public and political leaders continued to support retribution as the main focus of corrections with little understanding that most

offenders would be released back into the general public. It has been reported that over 1.6 million individuals are incarcerated in adult prisons in the United States and that the “majority of these individuals will be released into the community unskilled, undereducated, and highly likely to become re-involved in criminal activity” (The Center on Crime, Communities & Culture, 1997, p. 2). Harsher sentences, the “tough on crime” attitude, and reduction of support for programming alternatives proved to be a dangerous combination evidenced by a troubled correctional system plagued by riots and unrest in the 1980’s (Brooks, 1992). Conditions of the correctional system during this time period lead to a re-evaluation of what worked in reducing crime and unrest within the system itself.

In the 1990’s proponents of correctional education continued to conduct research on the effects of education within the correctional system. When looking at the challenges and changes in correctional education, Hackman (1997) wrote, “While the public seems concerned about tax dollars spent on educating inmates, most do not realize that every dollar spent on education is returned in public safety, employment, and recidivism reduction” (p. 74). Another proponent writes, “Even if educating inmates did not reduce recidivism, it would still be a valuable investment for taxpayers because inmates who are in school programs are happier and behave better, thereby making the prison a safer place” (Correctional Education Connections, 1999, p. 2).

The cost involved in running correctional systems seems to be an issue for many taxpayers. We, as taxpayers, want to be safe, but at what cost? It is difficult to sort through the basic components of cost effectiveness of correctional education programs without understanding a need for such programs. The most fundamental factors

supporting the need for correctional education programs include characteristics of the offender population, costs involved, and increasing crime rates.

Maguire and Pastore (1996) found that nationwide, 70% of the individuals entering state correctional facilities had not completed high school, 46% had only some high school experience, and 16% had no high school experience (p. 567). The National Adult Literacy Survey (1992) found that 40% of U.S. offenders were functionally illiterate compared 21% of the general population and that 70% of the offenders fell into the two lowest literacy levels as defined by the survey. Another study conducted in 1992 looked at offenders from two state prisons in Louisiana and found that 67% at one site and 51% at the second site had reading levels between 4th and 6th-grade levels (Bates, Davis, Guin, & Long, 1992). This same study found that 38% at the first site and 22% at the second site were reading below the 4th-grade level (Bates, Davis, Guin, & Long). In 1998, a study focusing on the literacy level of offenders entering Canadian prisons between 1992 and 1996 found the literacy levels observed indicated that the estimates of offender illiteracy reported in previous literature were low (Muirhead & Rhodes, 1998). Muirhead (1998) found that approximately 68% of offenders entering prison during the period between 1992 and 1996 were reading below an 8th-grade level and 19% were reading below a 6th-grade level.

According to a National Institute for Literacy Fact Sheet (2001) most prisons in the United States offer some form of General Equivalency Diploma (GED) preparation or Adult Basic Education programs. The Federal Prison System began mandatory literacy programs in 1982 for all offenders entering the system with a reading level below 6th-grade and in 1991 raised the requirement to all entering with a reading level below 12th-

grade (National Institute for Literacy, 2001). Even though the Federal Prison System mandates literacy programs, most state correctional systems do not mandate education programs for offenders. It is estimated that between 7% and 10% of offenders entering a correctional facility with low literacy skills actually receive education to improve their academic skills (National Institute for Literacy).

Elements of Correctional Education Programs

Currently, there are many inhibiting factors facing correctional education programs in the United States. Most correctional facilities offer some form of basic literacy, GED preparation and some vocational training but there is no consistency in participation, quality, or quantity (National Institute for Literacy, 2001; Brooks, 1992). Nationally, only 9% of offenders are enrolled in basic education courses and 7% of offenders are enrolled in GED preparation courses (Brooks). It has also been reported that the percentage of offenders enrolled in education programs in each state ranges from 7 to 86% with participation levels varying due to the number and types of programs available, offender characteristics, and levels of support for such programs (National Institute for Literacy).

Prison systems at the state level are faced with many constraints that effect the level of participation in correctional education programs (Kerka, 1995). One constraint is overcrowding (Brooks, 1992). Jenkins (1994) reported that the prison population increased 160% between 1980 and 1982. Besides the problems caused by overcrowding, correctional education programs must contend with problems arising from inadequate funding, equipment and supplies (Brooks; Paul, 1991). The uniqueness of the prison

culture including routines such as head counts, lock downs, hearings or legal meetings, and movement issues all compound the problems faced by the education programs within the prison system (Brooks; Shethar, 1993). “Increased prison violence has made “lockdowns” more common, thus keeping inmates in their cells, and out of correctional education classes, for days or even weeks at a time” (Brooks, p. 5). A more serious constraint is conflicting beliefs about education within the goals of the correctional system; education is secondary to security (Brooks; Shethar). Even though there are obstacles to face, many agree with the statement that, “All correctional education has value, because it provides inmates the opportunity to learn skills and develop their intellect” (Brooks, p. 6).

Michalek (1988) concluded that many offenders value education as evidenced by the waiting lists for education programs. Schwartz and Miller (1998) found that offenders report placing greater value on education after enrolling in a correctional education program. Participation in correctional education programs has been researched in terms of the reasons that offenders give for participation (National Institute for Literacy, 2001; Schwartz & Miller, 1998; Stephens, 1992). Several studies have shown that offenders cite self-improvement, increasing marketable skills, and reducing chances of returning to prison as the main reasons for participating in a correctional education program (National Institute for Literacy; Schwartz & Miller; Stephens). Stephens (1992) found that reasons offenders gave for participating in correctional education programs included self improvement, taking the GED, obtaining a job, advancing educational opportunities, and impressing the parole board. Jenkins (1994) and Thomas (1992) identified motivating factors for program participation as sentence

reductions, preferential prison employment, pay for school attendance, and grants for higher education.

For many years individuals have presented the idea that correctional education programs are essential for rehabilitation efforts (Brooks, 1992; Michalek, 1988; Stephens, 1992). Brooks contends that, "Education is the key to rehabilitation because it gives inmates the tools to deal with personal and societal issues that often lead to criminal behavior" (p. 6). It is believed that "Quality education is one of the most effective forms of crime prevention" (The Center on Crime, Communities & Culture, 1997, p. 1). As stated before, most correctional facilities offer some form of correctional education programming but there is no consistency in participation, quality, or quantity (National Institute for Literacy, 2001; Brooks, 1992). Over the past decade, many have used recidivism as a measure of quality or cost effectiveness of education programs (Adams et al., 1994; Cecil, Drapkin, Layton, Mackenzie, & Hickman, 2000; Harer, 1995a; Harer, 1995b; Hull, Forrester, Brown, Jobe, & McCullen, 2000; Jancic, 1998; Ohio Department of Rehabilitation and Correction, 1995).

However, Kerka (1995) viewed the use of recidivism rate for an outcome measure as one of the problems faced by correctional education programs. Kerka (1995) pointed out that the use of recidivism rates was a problematic practice due to the lack of a universal definition, recidivism is an indirect measure, and it is too simplistic. It has been reported that rates for recidivism ranges from 41% to 60% with differences being accounted for by a lack of consistency in the definition of the term recidivism (The Center on Crime, Communities & Culture). Jancic (1998) considers the use of recidivism as an outcome measure, as one of the biggest problems faced by correctional

education programs. The greatest problem with using recidivism as an evaluation measure is the lack of a universal definition (Jancic). For example, Gerber and Fritsch (1995) reviewed current research and found that recidivism has been defined as or measured by new arrests, new convictions, or new incarcerations. The problem lies in the fact that some released individuals may be arrested for committing new crimes, but might not be convicted or incarcerated for those crimes. In the same thought, a person convicted of a new crime, may or may not be re-incarcerated for the crime.

In addition, measuring recidivism rates does not provide educationally relevant information on the effectiveness of an education program (Kerka, 1995). There are other measures of impact that can provide measures of effective educational programs that can be more beneficial to the correctional education professional. Newman et al. (1993) suggested multiple ways to assess program effectiveness, which included instructional, behavioral, and post release measures.

Effective Practices in Correctional Education

Effective education practices in adult correctional facilities have been the focus of many studies over the past ten years (Honeycutt, 1995; Hunsinger, 1997; Kerka, 1995; Kirshstein & Best, 1997; Kuster, 1998; Levin, 1994; MacCormick, 1931; Steurer, 2000; Traverse, 2000; Worley & Schuster, 1997). Honeycutt's (1995) interviews with offenders participating in a prison literacy program demonstrated that offenders prefer teachers to facilitate learning in less formal classroom arrangements. Hunsinger (1997) found that the main principles of effective practices set about by Austin MacCormick in 1931 were still relevant in today's correctional education setting. MacCormick (1931)

found that effective practices in a correctional education program included an individualized approach in which appropriate diagnosis, prescription and guidance allowed offenders to maximize learning in a limited time. MacCormick (1931) also found that students were motivated to learn by seeing academic gains on frequent assessments and by seeing others succeed.

Kirshstein (1997) suggested measuring academic gains, behavioral changes, early release savings, and employment rates as some options for researching effective correctional education programs. Kerka (1995) found that correctional education programs based on sound adult education practices were effective. Kuster (1998) found that effective correctional education practices included collaboration between teachers and students, increased student accountability through frequent assessment and goal setting practices, the creation of a positive classroom environment, and a focus on high expectations and mutual respect. Levin (1994) found that the most effective correctional education strategies have to do with treating students as capable individuals, capitalizing on strengths and interests, and involving students in goal setting. Worley and Schuster (1997) found that student motivation increased when students were provided choices and their preferences were honored. Traverse (2000) conducted interviews with students in an adult correctional education program and found that students felt the program effective when there were clear incentives to learn and when students were expected to take responsibility for their own personal growth and willingness to learn. Steurer (2000) suggested that “The central measure of the effectiveness of any educational program is the educational advancement of students” (p. 167). The focus of past correctional education research has been mainly on the success of graduates but little has been

conducted on the factors related to academic gains helping students to move toward the successful completion of an adult education program.

Due to the current growth rate in prison populations in conjunction with state budget restrictions, it is more important than ever to begin documenting what correctional education programs are doing effectively. This includes reporting successes and failures. Currently, programmatic changes within many state correctional education programs are implemented without the necessary data to support the decisions to make changes.

Currently, education programs within the Indiana Department of Correction are evaluated on the number of student to teacher contact hours provided, the number of students enrolled and the number of students promoted or graduated from each program. Since each education program is unique, based on facility differences and resources available, it is important to evaluate each individual program in order to make decisions about changes that are needed. Since each facility develops its own program design for education, it is important for each program to evaluate their own program design based on the program goals and objectives. In order to make decisions at the Pendleton Correctional Facility about the effectiveness of the education program design and implementation, it is important to gather more information on the relationship between the amount of direct student to teacher contact time provided within the program placement options and academic gains. It is also important to discover if any other factors such as age, length of sentence, time served, earliest possible release date, and time cut eligibility are related to academic gains made by students within the education program. Therefore, the purpose of this study is to investigate the relationships among program placement, motivational time factors (i.e., age, length of sentence, time served,

earliest possible release date, and time cut eligibility) and academic gains in reading and math skills for adult learners at the Pendleton Correctional Facility.

CHAPTER 3

METHODOLOGY

Introduction

The Pendleton Correctional Facility is a maximum security, adult, male prison. Thomas R. White School provides educational services to offender students inside the Pendleton Correctional Facility and in a minimum security level dorm located outside of the main prison. The education program consists of three program placement options for offender students based on the offender's security classification and housing within the facility. The education program provides services in an on-site education program, in the lock-up units, and in the outside dorm.

The on-site education program is open to all offenders housed in the job eligible housing units within the main prison, who are job eligible and do not already hold a GED or High School Diploma. Students in the on-site education program meet with a teacher in a regular classroom setting for approximately 15 hours per week.

Offenders placed in lock-up units, protective custody, and the infirmary are not job eligible and therefore cannot attend classes in the on-site program. These students, with the help of tutors and a teacher participate in the education program through self-

study and one-on-one tutoring in their housing units. Assessments are conducted to determine the individual student needs and progress, just as in the on-site education program. The students then work independently on assignments and have less than one hour per week of direct teacher instruction.

Offenders housed in the outside dorm have job assignments that take them away from the facility during the day. The only time to conduct an education program is in the evening hours. The offenders participating in the outside dorm education program meet for approximately six hours per week with a teacher in a modified classroom setting within their housing unit. These students are assessed as all students within the education program for performance level and progress.

The education program operates under an open-entry/open-exit philosophy and consistently has between 150-200 students enrolled and attending classes daily. Under the open-entry/open-exit policy, approximately 15 to 20 new students are enrolled each month and approximately the same number of students are graduated or transferred out of the education program each month.

Each student is assessed upon entering the education program with the Test of Adult Basic Education (TABE) and is placed with a teacher depending on his scores on the assessment and housing placement. The student and teacher then develop an Individualized Learning Plan (ILP) to address the individual student's needs.

Students are assessed once each quarter with the Test of Adult Basic Education (TABE) to determine if progress has been made toward the student's goals. This allows teachers and students to constantly evaluate progress, make adjustments in placement, and to make any needed adjustments for the Individualized Learning Plan.

In order to make decisions at the Pendleton Correctional Facility about the effectiveness of the education program design and implementation, it is important to gather more information on the relationship between the amount of direct student to teacher contact time provided within the program placement options and academic gains. It is also important to discover if any other factors such as age, length of sentence, time served, earliest possible release date, and time cut eligibility are related to academic gains made by students within the education program. Therefore, the purpose of this study was to investigate the relationships among program placement, motivational time factors (i.e., age, length of sentence, time served, earliest possible release date, and time cut eligibility) and academic gains in reading and math skills for adult learners at the Pendleton Correctional Facility.

Description of the Population

The population for this study consisted of students enrolled in one of the three program placement options within the educational program at the Pendleton Correctional Facility with two sets of assessment data between the dates of July 1, 1999, through June 30, 2002. Since this study looked at academic gains, only students who had initial assessment data and at least one quarterly assessment completed were included in the study.

The population of students was determined by creating a listing of all students with at least two sets of assessment data in each of the three program placement options within the dates specified. Data was collected from 318 students to be analyzed for this study. The mean age of the participants was 29.93 years ($SD= 9.49$), with a range of 17

to 79 years. The mean length of sentence for the participants was 22.67 years (SD= 21.21), with a range of 1 to 195 years.

One hundred eighty-three (57.5%) of the men were African American, 116 (36.5%) were White, 11(3.5%) were Hispanic, 2 (0.6%) were Asian, 1 (0.3%) was Native American, and 5 (1.6%) identified themselves as "Other."

Two hundred fifty-two (79.2%) of the participants were enrolled in the on-site school program, 26 (8.2%) were enrolled in the outside dorm program, and 40 (12.6%) were enrolled in the lock-up unit program.

Data Collection Procedures

Information was obtained from a variety of sources once the population was identified for this study. The program placement, age of student, and assessment information was obtained from the education department student files and student database. Program placement was reported as on-site program, outside dorm program, or lock up unit program. Age of participants was reported as the age of the student upon enrollment into the education program. Assessment information was reported as pre-test and post-test reading and math scores.

Length of sentence, time served, earliest possible release date, and time cut eligibility was determined through the use of the Department of Correction Offender Information System and by researching individual offender files. Length of sentence was reported in actual sentence terms and was broken into categories of less than 10 years, 11-20 years, and more than 20 years for data analysis purposes. Time served was reported as less than 10 years, 11-20 years, and more than 20 years served prior to the

date of enrollment. Earliest possible release date was reported as within 5 years or more than 5 years from the date of enrollment. Time cut eligibility was reported as eligible or not eligible at the time of enrollment.

Data Analysis

A stepwise multiple regression analysis was conducted to predict if there is a relationship among program placement, motivational time factors (i.e., age, length of sentence, time served, earliest possible release date, and time cut eligibility) and academic gains in reading and math skills for adult learners at the Pendleton Correctional Facility. Academic gains in reading and math were the dependent variables with program placement and motivational time factors being the independent variables. This study used .05 as the significance level.

CHAPTER 4

PRESENTATION AND ANALYSIS OF DATA

A stepwise multiple regression analysis was conducted to predict if there is a relationship among program placement, motivational time factors (i.e., age, length of sentence, time served, earliest possible release date, and time cut eligibility) and academic gains in reading and math skills for adult learners at the Pendleton Correctional Facility. Academic gains in reading and math were the dependent variables with program placement and motivational time factors being the independent variables.

Demographics

The population for this study consisted of students enrolled in one of the three program placement options within the educational program at the Pendleton Correctional Facility with two sets of assessment data between the dates of July 1, 1999, through June 30, 2002. Since this study looked at academic gains, only students who had initial assessment data and at least one quarterly assessment completed were included in the study.

The population of students was determined by creating a listing of all students with at least two sets of assessment data in each of the three program placement options within the dates specified. Data was collected from 318 students to be analyzed for this study. The mean age of the participants was 29.93 years (SD= 9.49), with a range of 17 to 79 years (see Table 1). The mean length of sentence for the participants was 22.67 years (SD= 21.21), with a range of 1 to 195 years (see Table 1).

Table 1
Descriptive Statistics N=318

	<i>Mean</i>	<i>Standard Deviation</i>
Age	29.93	9.49
Length of sentence	22.67	21.21

One hundred eighty-three (57.5%) of the men were African American, 116 (36.5%) were White, 11(3.5%) were Hispanic, 2 (0.6%) were Asian, 1 (0.3%) was Native American, and 5 (1.6%) identified themselves as “Other.”

Two hundred fifty-two (79.2%) of the participants were enrolled in the on-site school program, 26 (8.2%) were enrolled in the outside dorm program, and 40 (12.6%) were enrolled in the lock-up unit program.

Correlations

Correlations for academic gains in reading skills are included in Table 2, and correlations for academic gains in math skills are included in Table 3.

Table 2
Correlations for Academic Gains in Reading Skills

<i>Pearson Correlation</i>	<i>Reading</i>	<i>Program</i>	<i>Age</i>	<i>Sentence</i>	<i>Served</i>	<i>EPRD</i>
Reading	1.00					
Program	.21					
Age	.10	.01				
Length of Sentence	-.10	-.15	.04			
Time Served	-.01	.04	.23	.22		
Earliest Possible Release Date (EPRD)	-.12	-.18	.00	.83	.05	
Time Cut Eligibility	-.01	-.03	-.19	-.12	-.07	-.05

Table 3
Correlations for Academic Gains in Math Skills

<i>Pearson Correlation</i>	<i>Math</i>	<i>Program</i>	<i>Age</i>	<i>Sentence</i>	<i>Served</i>	<i>EPRD</i>
Math	1.00					
Program	.20					
Age	.03	.01				
Length of Sentence	-.05	-.15	.04			
Time Served	.08	.04	.23	.22		
Earliest Possible Release Date (EPRD)	-.12	-.18	.00	.83	.05	
Time Cut Eligibility	-.06	-.03	-.19	-.12	-.07	-.05

In looking at the correlations between the various independent variables, it was found that there was a strong correlation between the length of sentence and the earliest possible release date ($r=.83$). This strong correlation indicates a violation in the assumption of no multicollinearity. Multicollinearity is a problem because a high correlation between two independent variables could cause one of the independent variables to look as if it is not significant when the analysis is completed. There are two ways in which a researcher can correct for this assumption violation: increase the sample size or discard one of the correlated independent variables. Therefore, in order to correct for this problem, a second analysis was completed with the independent variable of

earliest possible release date excluded. After completing the second analysis of data without earliest possible release date as an independent variable, it was found that the results were identical to the first analysis.

Findings Related to Null Hypotheses

The first null hypothesis of this study stated, there is no significant relationship among program placement, motivational time factors (i.e., age, length of sentence, time served, release date, and time cut eligibility) and academic gains in reading skills for adult learners at the Pendleton Correctional Facility.

Program placement was found to be a statically significant predictor of academic gains in reading skills, $R^2=.045$ (Adjusted $R^2=.042$), $F(1, 316) = 14.801$, $p<.05$. Four and one-half percent (4.5%) of the variance in academic gains in reading skills was accounted for by the combination of program placement and motivational time factors (see Table 4).

Table 4
Multiple Regression Summary for Academic Gains in Reading

	<i>Unstandardized B</i>	<i>Coefficients Standard Error</i>	<i>Standardized Coefficients Beta</i>	<i>t</i>	<i>Sig.</i>
Program	.14	.04	.21	3.85	.000
Constant	1.13	.06		20.19	.000

The motivational time factors of age, length of sentence, time served, earliest possible release date, and time cut eligibility were not found to be statistically significant predictors of academic gains in reading skills for adult learners at the Pendleton Correctional Facility (see Table 5).

Table 5
Excluded Variables for Reading

	<i>Unstandardized</i>		
	<i>B</i>	<i>t</i>	<i>Sig.</i>
Age	.099	1.81	.071
Sentence	-.065	-1.18	.241
Served	-.017	-.32	.752
EPRD	-.080	-1.42	.155
Timecut	-.005	-.10	.921

Since these independent variables were found not to be statistically significant predictors, they were excluded as variables in the stepwise process of the regression model. Therefore, even though program placement was found to be a statistically significant predictor of academic gains in reading skills for adult learners at the Pendleton Correctional Facility, there was a failure to reject the null as a whole.

The second null hypothesis for this study stated, there is no significant relationship among program placement, motivational time factors (i.e., age, length of sentence, time served, release date, and time cut eligibility) and academic gains in math skills for adult learners at the Pendleton Correctional Facility.

Program placement was also found to be a statistically significant predictor of academic gains in math skills, $R^2=.039$ (Adjusted $R^2=.036$), $F(1, 316)= 12.883$, $p<.05$. Three and nine-tenths percent (3.9%) of the variance in academic gains in math skills was accounted for by the combination of program placement and motivational time factors (see Table 6).

Table 6
Multiple Regression Summary for Academic Gains in Math

	<i>Unstandardized</i>	<i>Coefficients</i>	<i>Standardized</i>		
	<i>B</i>	<i>Standard</i>	<i>Coefficients</i>	<i>t</i>	<i>Sig.</i>
		<i>Error</i>	<i>Beta</i>		
Program	.12	.03	.20	3.59	.000
Constant	1.05	.05		21.51	.000

The motivational time factors of age, length of sentence, time served, earliest possible release date, and time cut eligibility were not found to be statistically significant predictors of academic gains in math skills for adult learners at the Pendleton Correctional Facility (see Table 7).

Table 7
Excluded Variables for Math

	<i>Unstandardized</i>		
	<i>B</i>	<i>t</i>	<i>Sig.</i>
Age	.032	.57	.567
Sentence	-.024	-.42	.672
Served	.073	1.33	.185
EPRD	-.084	-1.50	.134
Timecut	-.049	-.90	.374

Since these independent variables were found not to be statistically significant predictors, they were excluded as variables in the stepwise process of the regression model. Therefore, even though program placement was found to be a statistically significant predictor of academic gains in math skills for adult learners at the Pendleton Correctional Facility, there was a failure to reject the null as a whole.

CHAPTER 5

CONCLUSIONS, DISCUSSION, AND IMPLICATIONS

Summary of Study

The purpose of correctional education has continually evolved to correspond with the social context of the time period. The three distinctive periods of correctional education presented here are the *Grass Roots Era* 1798 through 1869, the *Age of Prison Reform* 1870 through 1969, and the *Tough on Crime Era* 1970 through 1999.

The ideology of corrections during the “grass roots era” period was that criminals were morally corrupt individuals unworthy of humane treatment. The goal of the correctional system was to improve society by taking criminals off the street. During this time period, the primary objective of the correctional system was to confine and punish offenders. Stemming from the beliefs of the time that criminals were morally corrupt and would be better citizens if they were disciplined in religion, there was a push from religious groups to provide religion based education. The obstacles faced by correctional education programs of this period included a lack of resources and support.

Then came the “age of prison reform” and the ideology of corrections shifted. The ideology of corrections during this period was that offenders are individuals who have

specific needs that if not met while incarcerated will continue to lead a life of crime. The goals of the correctional systems of this time period were to improve or reform society and develop human capital by providing for offender needs through various programming and treatment efforts.

In 1870, the American Prison Association was formed and the first congress of the association adopted a Declaration of Principles which began the Prison Reform Movement (Roberts, 1971). The 33 principles integrated behavioral science and education into the process of rehabilitation. The adoption of these principles demonstrated the need for change in the purpose of the correctional system from confinement and punishment to confinement and rehabilitation.

The “tough on crime” era marked a time period when the ideology of corrections shifted back to the idea of retribution. The ideology of this time period was that no matter what is provided for offenders while incarcerated, they would never be able to live successfully in society without committing crime. The goal of corrections during this time period was to improve society by taking offenders off the street and locking them up for long periods of time.

Harsher sentences, the “tough on crime” attitude, and reduction of support for programming alternatives proved to be a dangerous combination evidenced by a troubled correctional system plagued by riots and unrest in the 1980’s (Brooks, 1992). Conditions of the correctional system during this time period lead to a re-evaluation of what worked in reducing crime and unrest within the system itself.

In order to meet the increasing demands of the numbers and diversification of offenders entering the prison system during this time period correctional education

programs began to develop a broader definition of purpose. By the 1990's correctional education programs included literacy programs, adult basic education, vocational education, job preparation programs, transitional programs, and special education programs.

The problems faced by correctional education programs during this period include a lack of consistency in participation, quality or quantity. Along with these problems, correctional education suffered simply as a result of being within correctional systems that were lacking funding, social and political support, resources, space, staff, materials, and supplies in general (Brooks, 1992).

Currently, there are many inhibiting factors continuing to face correctional education programs in the United States. Most correctional facilities offer some form of basic literacy, GED preparation and some vocational training but there continues to be no consistency in participation, quality, or quantity (Brooks, 1992). Nationally, only 9% of offenders are enrolled in basic education courses and 7% of offenders are enrolled in GED preparation courses (Brooks). Participation levels vary due to the number and types of programs available, offender characteristics, and levels of support for such programs.

As the purpose of our correctional system shifted philosophically from rehabilitation to retribution the importance of correctional education has lessened and the goals of correctional education have become blurred. There has always been a close relationship between rehabilitation and correctional education programs. Shifts in political and societal sentiments about the importance and value of rehabilitation have forced changes in correctional education programming or have forced such programs into non-existence. Even though correctional education programs have faced the same types

of obstacles throughout the history of such programs, they have been able to continually evolve to meet the needs of offenders, facilities, and the societal and political pressures of the time.

Concern over crime rates in recent years has led many people to support increases in incarcerations and sentence terms for offenders. This has resulted in a doubling of the prison population in the United States. Increases in the prison population have resulted in increased spending for prison construction and programs for offenders. Overcrowding and strained resources have forced correctional systems to evaluate the effectiveness and viability of programs being provided for offenders. Correctional education is only one of the many rehabilitative programs that has been a target for evaluation of effectiveness and viability. The focus of past research on correctional education programs has primarily been on the cost effectiveness of such programs in terms of their ability to decrease the recidivism rate for offenders completing the education program. Recidivism research has demonstrated that correctional education programs show promise in reducing the recidivism rates for offenders completing the programs, which in turn is equated to cost savings for correctional systems and the public.

Despite the fact that reducing recidivism is the most researched and desired correctional education program outcome for political and budgetary purposes, measuring recidivism rates does not provide educationally relevant information on the effectiveness of an education program (Kerka, 1995). There are other measures of impact that can provide measures of effective educational programs that can be more beneficial to the correctional education professional.

Before assessing the effectiveness of an educational program, it is important to understand the framework under which the program operates. This means that in order to assess an adult education program within a correctional setting, it is important to have a basic understanding of Adult Learning Theory.

Adult learning theory focuses on maximizing learner involvement in all dimensions of the adult learning process. The adult learning process is defined by three processes in which the student and teacher work together to jointly clarify the intent, check progress and process, and evaluate outcomes. The intent of the learning process is clarified through a learner needs assessment which leads to identifying learning objectives, instructional methods, and materials to best meet the student needs. The progress and process of the learning process is checked through continuous monitoring of student progress. On-going student assessment provides information for the student and teacher to make adjustments in curriculum, methodology, or learning style. Outcomes are evaluated in a variety of ways which could lead the learner to continue personal growth and learning. The principles of adult learning theory and the adult learning process are in place within the educational programs at the Pendleton Correctional Facility.

The Pendleton Correctional Facility is a maximum security, adult, male prison. Thomas R. White School provides educational services to offender students inside the Pendleton Correctional Facility and in a minimum security-level dorm located outside of the main prison. The education program consists of three program placement options for offender students based on the offender's security classification and housing within the

facility. The education program provides services in an on-site education program, in the lock-up units, and in the outside dorm.

The on-site education program is open to all offenders housed in the job eligible housing units within the main prison, who are job eligible and do not already hold a GED or High School Diploma. Students in the on-site education program meet with a teacher in a regular classroom setting for approximately 15 hours per week.

Offenders placed in lock-up units, protective custody, and the infirmary are not job eligible and therefore cannot attend classes in the on-site program. These students, with the help of tutors and a teacher participate in the education program through self-study and one-on-one tutoring in their housing units. Assessments are conducted to determine the individual student needs and progress, just as in the on-site education program. The students then work independently on assignments and have less than one hour per week of direct teacher instruction.

Offenders housed in the outside dorm have job assignments that take them away from the facility during the day. The only time to conduct an education program is in the evening hours. The offenders participating in the outside dorm education program meet for approximately six hours per week with a teacher in a modified classroom setting within their housing unit. These students are assessed as all students within the education program for performance level and progress.

The education program operates under an open-entry/open-exit philosophy and consistently has between 150-200 students enrolled and attending classes daily. Under the open-entry/open-exit policy, approximately 15 to 20 new students are enrolled each

month and approximately the same number of students are graduated or transferred out of the education program each month.

Each student is assessed upon entering the education program with the Test of Adult Basic Education (TABE) and is placed with a teacher depending on his scores on the assessment and housing placement. The student and teacher then develop an Individualized Learning Plan (ILP) to address the individual student's needs.

Students are assessed once each quarter with the Test of Adult Basic Education (TABE) to determine if progress has been made toward the student's goals. This allows teachers and students to constantly evaluate progress, make adjustments in placement, and to make any needed adjustments for the Individualized Learning Plan.

Currently, education programs within the Indiana Department of Correction are evaluated on the number of student to teacher contact hours provided, the number of students enrolled and the number of students promoted or graduated from each program. Since each education program is unique, based on facility differences and resources available, it is important to evaluate each individual program in order to make decisions about changes that are needed. Since each facility develops its own program design for education, it is important for each program to evaluate their own program design based on the program goals and objectives. In order to make decisions at the Pendleton Correctional Facility about the effectiveness of the education program design and implementation, it has become important to gather more information on the relationship between the amount of direct student to teacher contact time provided within the program placement options and academic gains. It is also important to discover if any other factors such as age, length of sentence, time served, earliest possible release date, and

time cut eligibility are related to academic gains made by students within the education program. Therefore, the purpose of this study was to investigate the relationships among program placement, motivational time factors (i.e., age, length of sentence, time served, earliest possible release date, and time cut eligibility) and academic gains in reading and math skills for adult learners at the Pendleton Correctional Facility.

The population for this study consisted of students enrolled in one of the three program placement options within the educational program at the Pendleton Correctional Facility with two sets of assessment data between the dates of July 1, 1999 through June 30, 2002. Since this study focused on academic gains, only students who had initial assessment data and at least one quarterly assessment completed were included in the study.

The population of students was determined by creating a listing of all students with at least two sets of assessment data in each of the three program placement options within the dates specified. Data was collected from 318 students to be analyzed for this study. The mean age of the participants was 29.93 years ($SD=9.49$), with a range of 17 to 79 years. The mean length of sentence for the participants was 22.67 years ($SD=21.21$), with a range of 1 to 195 years.

One hundred eighty-three (57.5%) of the men were African American, 116 (36.5%) were White, 11 (3.5%) were Hispanic, 2 (0.6%) were Asian, 1 (0.3%) was Native American, and 5 (1.6%) identified themselves as "Other."

Two hundred fifty-two (79.2%) of the participants were enrolled in the on-site school program, 26 (8.2%) were enrolled in the outside dorm program, and 40 (12.6%) were enrolled in the lock-up unit program.

Information was obtained from a variety of sources once the population was identified for this study. The program placement, age of student, and assessment information was obtained from the education department student files and student database. Program placement was reported as on-site program, outside dorm program, or lock up unit program. Age of participants was reported as the age of the student upon enrollment into the education program. Assessment information was reported as pre-test and post-test reading and math scores.

Length of sentence, time served, earliest possible release date, and time cut eligibility was determined through the use of the Department of Correction Offender Information System and by researching individual offender files. Length of sentence was reported in actual sentence terms and was broken into categories of less than 10 years, 11-20 years, and more than 20 years for data analysis purposes. Time served was reported as less than 10 years, 11-20 years, and more than 20 years served prior to the date of enrollment. Earliest possible release date was reported as within 5 years or more than 5 years from the date of enrollment. Time cut eligibility was reported as eligible or not eligible at the time of enrollment.

This study consisted of two primary research questions. The first question investigated if there were a relationship among program placement, motivational time factors (i.e., age, length of sentence, time served, release date, and time cut eligibility) and academic gains in reading skills for adult learners at the Pendleton Correctional Facility. The second question investigated if there were a relationship among program placement, motivational time factors (i.e., age, length of sentence, time served, release

date, and time cut eligibility) and academic gains in math skills for adult learners at the Pendleton Correctional Facility.

In looking at the correlations between the various independent variables, it was found that there was a strong correlation between the length of sentence and the earliest possible release date ($r=.83$). This strong correlation indicates a violation in the assumption of no multicollinearity. Multicollinearity is a problem because a high correlation between two independent variables could cause one of the independent variables to look as if it is not significant when the analysis is completed. There are two ways in which a researcher can correct for this assumption violation: increase the sample size or discard one of the correlated independent variables. Therefore, in order to correct for this problem, a second analysis was completed with the independent variable of earliest possible release date excluded. After completing the second analysis of data without earliest possible release date as an independent variable, it was found that the results were identical to the first analysis.

A stepwise multiple regression analysis was conducted to predict if there is a relationship among program placement, motivational time factors (i.e., age, length of sentence, time served, earliest possible release date, and time cut eligibility) and academic gains in reading and math skills for adult learners at the Pendleton Correctional Facility. Academic gains in reading and math were the dependent variables with program placement and motivational time factors being the independent variables with a significance level of .05.

Conclusions and Recommendations

The first null hypothesis of this study stated, there is no significant relationship among program placement, motivational time factors (i.e., age, length of sentence, time served, release date, and time cut eligibility) and academic gains in reading skills for adult learners at the Pendleton Correctional Facility.

Program placement was found to be a statically significant predictor of academic gains in reading skills. The motivational time factors of age, length of sentence, time served, earliest possible release date, and time cut eligibility were not found to be statistically significant predictors of academic gains in reading skills for adult learners at the Pendleton Correctional Facility. Therefore, even though program placement was found to be a statistically significant predictor of academic gains in reading skills for adult learners at the Pendleton Correctional Facility, there was a failure to reject the null as a whole.

The second null hypothesis for this study stated, there is no significant relationship among program placement, motivational time factors (i.e., age, length of sentence, time served, release date, and time cut eligibility) and academic gains in math skills for adult learners at the Pendleton Correctional Facility.

Program placement was also found to be a statistically significant predictor of academic gains in math skills. The motivational time factors of age, length of sentence, time served, earliest possible release date, and time cut eligibility were not found to be statistically significant predictors of academic gains in math skills for adult learners at the Pendleton Correctional Facility. Therefore, even though program placement was found to

be a statistically significant predictor of academic gains in math skills for adult learners at the Pendleton Correctional Facility, there was a failure to reject the null as a whole.

The motivational time factors were chosen for this study after many discussions with correctional education professionals brought to light a common perception among correctional personnel that these factors somehow influence student achievement. For example, comments had been made to this researcher that older students progress through the education program at a quicker pace than do younger students. Other comments included statements that offenders with longer sentences or those who had been incarcerated for a longer period of time had become more “institutionalized” or stable and therefore performed better in the education program. Other comments demonstrating misconceptions included statements about students being more motivated to progress through an education program if they were eligible for a time cut.

This study found that the motivational time factors of age, length of sentence, time served, earliest possible release date, and time cut eligibility were not statistically significant predictors of academic gains in reading and math skills for adult learners at the Pendleton Correctional Facility. This finding is significant in that it shows that the motivational time factors chosen for this study do not relate to academic gains as some correctional personnel believe. Therefore, motivational time factors should not be used as a basis for making program design and implementation decisions for the education program at the Pendleton Correctional Facility.

It was found that program placement was a significant predictor of academic gains in reading and math skills for the adult learners at the Pendleton Correctional Facility. This finding would suggest that further research to investigate any differences

in program placement options as they relate to academic gains would assist in determining program effectiveness. Specifically, further research could look at the question of in which program placement option do participants demonstrate the largest academic gains in reading and math. Since the education program is assessed on the number of contact hours, number of students demonstrating academic gains, and number of students graduating, further investigation into this question would be beneficial to the program. Further investigation into the differences between the program placement options would allow the education supervisor to make sound research based decisions about where to focus time and resources in the most effective and productive programs.

In addition, further research might include looking at the individual impact of the education program for each student. Research might focus on the individual differences of the students participating within each program placement option. This would enable the researcher to examine the role that individual motivation and self-directed learning impacts academic gains of students within each of the program placement options.

One might also investigate the factors discussed by Kuster (1998) as the most effective practices for academic success within the correctional education setting. These factors included setting high expectations, encouraging mutual respect, creating a positive learning environment, collaboration between the teacher and student, and improving student accountability through continual assessment and goal setting. Further investigation into these factors for the educational programs within the Pendleton Correctional Facility would provide valuable information for the education administration at the facility to make decisions about program design and implementation

more responsive to the individual needs of the offender population and more effective in providing assistance to students to meet the goals of academic advancement.

Summary

In conclusion, the results of this study has found that program placement is a statistically significant predictor of academic gains in both reading and math skills for adult learners at Pendleton Correctional Facility. These findings are important to the future evaluation of education program design and implementation for Pendleton Correctional Facility and other correctional education programs with similar program designs. Correctional education programs need to continue to collect data on program differences and base decisions for program changes on research concentrating on the education program goal of assisting students in making academic gains.

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