The Impact of an Intensive Program to Increase the Literacy Skills of Youth Confined to Juvenile Corrections

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Abstract

Illiteracy is perhaps the strongest common denominator among individuals in corrections (Kidder, 1990). Evidence shows a correlation between low education attainment, low literacy levels and high levels of adjudication and recidivism. Research demonstrates a correlation between participation in education programs and lower crime rates and lower levels of recidivism. In 1996, Williams conducted a study to reduce recidivism of 611 inmates in Genese County Jail in Flint, Michigan. Results indicated a 3.5% decrease in recidivism rate and a one-year gain in reading for participants. This study will examine the effects of an intensive literacy program in a juvenile detention center in Maryland.

In this investigation, a multiple baseline design across participants is used to evaluate the effectiveness of an intensive literacy program aimed at increasing the literacy skills of youth confined in juvenile corrections. The final results reveal positive gains with respect to oral fluency, grade placement and attitude. This supports the notion that educational services in juvenile corrections provide incarcerated youths with a chance to increase their academic skills and develop the emotional confidence needed to achieve personal goals.

Introduction

In some jurisdictions, approximately 70% of the incarcerated population is believed to be illiterate (Bureau of Justice Statistics, 1997). 70% have not completed high school (Maguire & Pastore, 1996), and 40%-70% have learning disabilities (Gemignani, 1994). Data from Project Read (1978) indicated that the average reading level nationally for 9th grade youth in correctional facilities was 4th grade. While poor reading skills and poor academic performance are not direct causes of criminal activity, adolescents who have deficits in these areas are disproportionately represented in correctional institutions. One mechanism to reduce crime and recidivism is to provide quality education services with a strong emphasis on reading literacy to incarcerated youth. Evidence suggests a correlation between low education attainment, low literacy levels and high levels of crime and recidivism.

Significance of Study

Crime and fear have caused policy-makers and legislators to support the idea of building more prisons. As a result, sentencing legislation has become harsher and some prison programs have been eliminated. However, research has shown that to reduce crime rates and recidivism of students with disabilities and ethnic minorities in juvenile corrections, correctional educators need to incorporate programs with strong emphasis on literacy development.

Since the average length of stay for adjudicated youth is eight to 11 months, programs with an intensive literacy focus are imperative to ensure educational gains. This study examines the impact of an intensive educational literacy program of youth committed to juvenile corrections.

Review of Literature

Historical Perspective of Literacy

The debate over how students have performed in reading during the twentieth century remains arguably controversial. One constant is that students with low literacy performance are disproportionately poor, African American, adjudicated, and individuals with disabilities.

Adolescents living in the 21st century will read more than previous generations (Moje & Young, 2000). They will need to acquire advanced literacy skills to perform successfully at work, at home, and in their personal lives. Literacy levels have remained fairly constant throughout the majority of the 20th century (Stedman & Kaestle, 1991; Steadman, 1996; NCES, 1995) with noticeable declines in the last decade (Coulson, 1996; National Assessment of Educational Progress, 1982). Although some contend that declines have been exaggerated (Bracy, 1991; Berliner & Biddle, 1995), others indicate that today’s youth hold the highest reading literacy levels in history (National Council of Teachers of English, 1996).

Collins (1996) found that poor readers lack motivation and meaningful reading experiences and most middle school students spend very little time reading voluntarily. Corrective reading is one strategy that has been used to increase literacy levels of poor readers. It provides readers with more experiences in reading and direct instruction in specific areas of need (Allington, 1994). Once corrective reading strategies are taught, students receive reinforcement and practice (Engleman, Hanner and Johnson, 1999).

Methodology

Study Site

The study was conducted at Oak Hill Youth Center in Laurel, MD. The facility houses committed and detained youth from the District of Columbia and has capacity of
188 boys and girls aged 12 through 21. Oak Hill Academy education program for middle and high school has a student-teacher ratio of 15:1, currently averaging 8:1. The curriculum has five major components. It strives to meet national content standards, provide opportunities for students with special needs, school to career opportunities, technology-related experiences, and maintain high behavioral standards. Counseling focuses on job placement and successful transition into society. Oak Hill places strong emphasis on increasing literacy. Each resident is required to participate in an evening literacy program in his or her living unit. Under supervision of Youth Correction Officers, the 11 housing units implement structured reading activities every evening for one hour.

Demographic Data
Each participant's educational file was reviewed to gather information related to gender, age, race, grade, academic performance, and additional services received. Parents were asked to complete a consent form and demographic questionnaire to gather information concerning income level, residence, educational background and marital status.

Description of Participants
Participants in the study were 6 residents of Oak Hill with a mean age of 17 years, committed for a minimum of 6 months at the start of the study. All participants were African American males with reading scores at or below the 25th percentile according to the Wide Range Achievement Test and Corrective Reading Placement Test taken from their academic files. Each student had a history of educational disabilities, and/or had received special education services.

Science Research Associates (SRA) Corrective Reading
Participants received instruction with corrective reading materials during the study. Corrective Reading refers to supplemental and enhanced reading instruction conducted within the classroom for students who experience difficulty reading in grades 3 through 12 (Engelmann, Hanner & Johnson, 1989). Corrective Reading strategy focuses on 2 important elements: decoding and comprehension. Placement tests were given to identify students' instructional level before the study began and after the study ended. This pre and post testing allowed the researcher to answer research question number two. The Corrective Reading program was divided into two strands progressing from simple to more difficult: Decoding A, B1, B2, C and Comprehension A, B1, B2, C. The Decoding Placement Test measured each student's oral reading accuracy. Decoding helped increase word identification, pronunciation, and accuracy. Students' reading fluency was assessed and documented at the end of each lesson (Engelmann, Hanner & Johnson, 1989). The formula for determining fluency rate is the number of words read correctly per minute minus the number of errors (#WRC per min - E).

Training materials were divided into two parts: Guide and Presentation. The guide provided basic information such as strategies for effective teaching exercises, correcting mistakes, and the placement test. The Presentation guide provided a script for each lesson to the teacher and the responses expected from students.

Trainers / Interns
Three undergraduate students from the University of Maryland majoring in special education or a related field with an interest in research in juvenile justice were selected as trainers for the study. They were Caucasian females. Two were seniors, the other a sophomore. The interns were given three training sessions on how to implement the corrective reading strategy. Reliability checks were conducted on data collection and were randomly taken during baseline and intervention.

Procedure
The Superintendent of Oak Hill authorized the study to be conducted three times a week, one hour in the evening, for eight weeks beginning January 2001. Parents were notified in writing explaining the purpose of the study and were asked to return their questionnaire in a self-addressed envelope. Information was collected by telephone for those who failed to return questionnaires. During a typical lesson, each student worked on specific skills such as sounding out words and letters, letter identification, and general decoding strategies. The scripts made certain that all trainers used the same language for effectiveness and uniformity. During baseline, the trainers implemented corrective reading process without providing feedback to the participants, documenting the number of errors made. At the end of each lesson, each participant took a test by reading a passage while the interns scored the number of words read correctly per minute. Participants occasionally attempted to read faster to improve their scores. Trainers corrected these attempts by reinforcing the importance of reading correctly rather than quickly. After each test-out, the trainer and the participant would proceed to the next lesson.

Reliability of Oral Fluency Measurement
The reliability of the oral reading measurement, used to answer research question one, was assessed five times during the study. Reliability checks were conducted on participants 2 and 5 during baseline and on participants 1, 3, and 6 during intervention. The intern and researcher calculated these checks simultaneously and independently. After each reliability check, the intern and researcher compared notes to determine which participant received high or low scores. Reliability was then calculated by dividing the low number of words read correctly by the high number of words read correctly and dividing by 100. The mean reliability during baseline and intervention for Group 1 was 83.3 and 85.4 respectively. The mean reliability for Group 2 during baseline and intervention was 82.4 and 84.1 respectively.

While reliability is a critical factor, Wahler and Laske (1973) stress the importance of accuracy of treatment. The researcher observed reading instructions daily to ensure that corrective procedures were adequately followed, and
also conducted six individual spot checks. These checks were conducted during baseline on participants 1, 3 and 6 and during intervention on participants 2, 3 and 6. The mean score of these six checks were 83.3.

Attitude Assessment

Participants’ attitude toward reading literacy was measured by the Rhody-Secondary Reading Attitude Assessment (RSRA), a 25-item questionnaire widely used among populations similar to those found in juvenile correction. The RSRA has .84 test re-test reliability and has been normed across populations. The scale was used for pre and post assessment to determine changes of attitude toward reading. School counselors have used this tool to assess student problems partially stemming from poor attitude toward reading and it has assisted classroom teachers in understanding student feelings toward reading in general. A very positive response to positively worded questions received a score of 5, and a very negative response received a score of 1. A response of “strongly agree” indicates a very positive attitude and received a score of 5, “agree” received a 4, “undecided” received a 3, “disagree” received a 2. A “strongly disagree” response indicated a very negative attitude and received a score of 1. The interpretation of the scale was reversed for negatively worded questions.

Single Subject Design

A single-subject multiple baseline research design was used to assess reading fluency of participants and to answer research question number one. This approach avoids the use of averages often found in group designs and allows for evaluation of individual participants. Participants’ performance is monitored and documented daily over an extended period of time. Each subject is compared to himself while intervention is replicated with other participants during the same design (Alberto & Troutman, 1999, p. 166). Words read correctly per minute during each corrective reading session was used to answer research question number one.

During baseline, participants read without corrective feedback. Acceptable baseline and intervention were established when three or more consecutive data points were stable with respect to level and trend. Trainers collected acceptable baseline data on the first participant while collecting baseline data on two other participants. Once baseline was stable for the first participant, trainers began to implement Corrective Reading strategies (intervention). Once acceptable trend and level was obtained for a minimum of three data points during baseline for participant 1, participant 2 began intervention. Once acceptable trend and level was obtained for a minimum of three data points during baseline for participant 2, participant 3 began intervention. The same process was replicated for group 2.

Analysis

For question 1, Figure 1 demonstrates changes from baseline to intervention of participants in the study. During baseline student performance remained stable with respect to level and trend. Once intervention was applied, the graph reveals that performance increased.

Research Questions and Results

Question 1: What effect will an intensive literacy program have on the oral reading fluency of incarcerated youth?

Multiple Baseline Design: Group 1

Data show positive gains for all participants in Group 1. During baseline, participant 1 reached stability after the fourth lesson and intervention started during the fifth. During baseline, he had a mean of 88 words read correctly per minute. Over the next four sessions he began to increase oral fluency rate with respect to level and trend. During intervention, participant 1 completed 24 lessons with a low of 81 and high of 98 words read correctly per minute. The mean number of words read correctly per minute during intervention was 92. Participant 2 remained in baseline for twelve lessons, began intervention during lesson thirteen, and had a mean score of 69 words read correctly per minute during baseline. There were observable changes in oral fluency rates over the next four to five lessons once intervention was implemented. He completed 19 lessons and had a mean of 80 words read correctly per minute during intervention. Participant 3 remained in baseline for seventeen lessons and began intervention during lesson eighteen. As with the previous students, his improvements were noticeable during intervention. Participant 3 completed 18 lessons during intervention and had mean of 70 and 81 words read correctly per minute during baseline and intervention respectively. All participants in Group 1 improved their oral fluency rate after intervention was implemented. In contrast, it was clear that all participants’ oral fluency rate remained stable during baseline without intervention. Figure 1 provides a visual display of the results for Group 1.

Multiple Baseline Design: Group 2

Data show positive gains for all participants in Group 2. Participant 4 remained in baseline for seven lessons before reaching stability, began intervention during lesson eight and had a mean score of 82 words read correctly per minute during baseline. During Intervention, he completed 22 lessons and had a low of 62 and high of 95 words read correctly per minute. Participant 4 also had a mean of 86 words read correctly per minute during intervention. Participant 5 remained in baseline for ten lessons, began intervention during lesson eleven and had a mean of 19 words read correctly per minute during baseline. During intervention there were improvements in oral fluency rate. Participant 5 completed 19 lessons and had a mean of 36 words read correctly per minute during intervention. Participant 6 remained in baseline for fifteen lessons, began intervention during lesson sixteen and
completed 17 lessons during intervention. He had mean scores of 205 and 213 during baseline and intervention respectively. All participants in Group 2 experienced positive gains in oral reading fluency rate once intervention was applied. Conversely, it was clear that participants' oral fluency rate remained stable during baseline without intervention.

**Question 2:** What effect will an intensive literacy program have on the grade placement levels of incarcerated youth?

The Corrective Reading Placement Test was administered to determine pre- and post-test grade placement level of each participant. Test results support the argument that participants improved their grade levels. For all participants, placement increased from half a grade to a full grade. For example, two of the participants made improvements from placement grade level B1 to B2. Participant 5 made the most significant gains. He moved from grade placement level A2 to B1. Other gains include Participants 1 and 4 moving from B1 to B2 and participant 6 moving from a beginner C level to advanced C.

**Question 3:** What effect will an intensive literacy program have on the attitude toward reading of incarcerated youth?

The Rhody-Secondary Reading Attitude Assessment (RSRA) was administered as a pre- and post-test measure to assess attitude changes toward reading among the six participants. Resulting data show marked changes in attitude. For example, Question 12 of the attitudinal assessment stated, "You like to improve your vocabulary so you can use more words." The median and mode pre-test responses were 3.5 and 4 while the median and mode post-test responses were 4.5 and 5 respectively. Participants also had noticeable changes in attitude toward reading. For the positively worded questions, there were positive trends in the median and mode responses in 12 of 13 and 11 of 13 questions respectively. The negatively worded questions had similar results. The median and mode responses show positive trends in 9 of 12 and 6 of 12 questions respectively. Figure 3 further illustrates this point.

**Discussion**

Low literacy plays a key role in criminal behavior when individuals have fewer opportunities for training and employment (National Institute for Literacy, 1999). Some educators have already uncovered this correlation between disabilities and criminal behavior. Others have theorized that individuals with learning disabilities and low self-esteem seek acceptance by joining gangs for approval and/or participating in illegal activities for financial gain (Sturomski, 1996).

Another problem faced by those in the juvenile justice system is recidivism. Some studies have found a direct correlation between participation in education programs and lower rates of crime and recidivism (Williams, 1998). In 1998, the Federal Bureau of Investigations concluded that the more active role an inmate plays in prison education programs the less likely he or she will be re-incarcerated. Correctional education assists juvenile offenders in breaking the cycle of criminal activity by giving them skills necessary to succeed in society (Steuer, 1996).

The study explored whether an intensive literacy program could positively affect reading fluency rate, reading placement level, and attitude toward reading of 6 participants. Changes in individual behavior were documented using a single subject research strategy focused on word identification, word pronunciation, and accuracy. Reading placement levels and attitude toward reading were assessed through pre and post test measures.

In addition to positive results for reading fluency, findings demonstrated that corrective reading technique improved student placement levels and attitude toward reading. By the end of the study, most participants expressed interest in returning to school, finding employment, reading independently, and
possibly obtaining a General Education Development Certificate (GED).

The enjoyment and heartfelt appreciation of Oak Hill participants was not easily measured. During the third and fourth weeks, many participants expressed appreciation of the program with statements such as “I feel like I’m sounding out words better” and “I never had so much fun reading.” Participants expressed gratitude and thanked the interns for their efforts. They clearly showed passion and interest in improving academic skills. They developed a solid working relationship with their instructors and were able to share their experiences openly. Gains were not purely academic in that participants felt more confident and able to take on new challenges.

Limitations and Challenges

Conducting research in a juvenile correctional facility is a challenge. Inconsistent cooperation by administrators and youth correctional officers (YCOs), court dates and other events present challenges to researchers. YCOs often failed to monitor sessions and provide the investigator with dependable security during instruction. Participants were occasionally brought to instruction 20-30 minutes late. Some YCOs in key positions believed reading literacy programs interfered with daily operations. Protests were raised over the timing of the sessions and their interference with showers and other daily activities. Other constraints that interfered with sessions included routines such as lock downs, meetings with lawyers, cell searches, fires in units and changes in behaviors resulting from the daily struggle of being held in juvenile detention.

One major challenge faced by implementers of the study is changing YCO’s attitudes toward reading instruction. This will require a shift in institutional culture. Key determinants of an organizational culture, values, behaviors, and incentives as they relate to education must change if literacy initiatives are to succeed. Although positive, another challenge that occurred during the study was the “grapevine effect.” Many juveniles at Oak Hill who learned about the study left their units without permission to participate in the program. They heard from the participants about the positive aspects of the literacy program. Although their behavior was somewhat disruptive, these youth violated institutional rules in an attempt to receive reading instruction. This suggests that similar programs will be seen as an attractive option by incarcerated youth.

While the study was effective and shows strong face validity, generalization must be taken into consideration when addressing various situations involving individuals with different ethnicity and/or gender and similar behavioral problems. Future research replicating this study across populations may further substantiate the findings.

Future Research

The present study has a number of implications for literacy and education within juvenile corrections. Although a number of academic characteristics of juvenile offenders have been identified, little research has been conducted on increasing academic skill deficits, specifically reading literacy skills. Additional studies on carefully sequenced and structured reading instruction are needed to help educators and correctional administrators prepare youth for their active and positive return to society. Future research should also address emotional, attitudinal and behavioral issues such as personal experience, attitudes toward reading within the juvenile justice system, and recidivism. Questions that need to be addressed include: What are the incentives for correctional administrators to encourage incarcerated youth to improve academically? What do incarcerated youth need to successfully perform in school? What effect do personal experiences have on their motivation to read successfully or perform well in school? How can corrective reading instruction be added to the curriculum in detention and confinement facilities? Since generalization is an issue, future research should study populations other than African American males to add validity to reading literacy programs in corrections.

Recommendations

Educational services in juvenile corrections provide incarcerated youth with a chance to increase their academic skills, to develop confidence to achieve personal goals, and to become productive members of society (Taylor, 1993). Early identification of disabilities among juveniles would assist correctional administrators in providing appropriate services. Information on academic deficits and education-related disabilities could be made available to educators, lawyers, judges, probation officers, and other correction officials. As the level of awareness increases, successful implementation of special services to the juvenile correction population may improve.

Conclusion

Youth with disabilities, African American males, and other minorities are over-represented in corrections. One common characteristic among these individuals is the inability to read well. This study demonstrated that reading skills of youth in corrections could improve given the opportunity to learn in a structured environment. Reading literacy programs not only increase reading skills of youth in corrections, they provide options and opportunities for them to become productive members of society.

The study also emphasized the disproportionate number of African American males committed to juvenile corrections. Data show that African American males represent over 65% of those incarcerated and/or committed to detention centers. Data also show that most juveniles tend to commit crimes shortly after their release. This study addressed rehabilitation and education among this population in order to promote smooth transition into their communities to become productive members of society. A number of research studies have demonstrated that educational attainment is associated with lower rates of recidivism among juveniles. The issue remains whether correction officials and community leaders, as well as state and Federal governments, will examine these results and trigger appropriate organizational and policy changes to
establish wider and more effective education programs. If these options are not explored, African Americans will continue to outnumber other ethnic groups in corrections.

References
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Biographical Sketch
William Drakeford is currently an Assistant Professor and Project Associate for the National Center on Education, Disability, and Juvenile Justice (EDJJ) in the Department of Special Education, at the University of Maryland. Dr. Drakeford has monitored and evaluated numerous educational and literacy programs in juvenile and adult correctional facilities around the country.