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## ISSUE BRIEF:

# The Importance of Literacy for Youth Involved in the Juvenile Justice System

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During a single year, an estimated 2.18 million youth under the age of 18 are arrested in the United States (Puzzanchera, 2009). In addition, nearly 93,000 youth are in public and private detention and correctional institutions (Sickmund, Sladky, Kang, & Puzzanchera, 2008), with an average cost of \$240.99 per day per youth<sup>1</sup> (American Correctional Association, 2008). A disproportionate number of these youth have not acquired adequate literacy skills. Youth with low literacy skills not only are more likely to be involved in the juvenile justice system, but also have a higher likelihood of negative outcomes post incarceration. The purpose of this issue brief is to illustrate the correlation between low literacy and involvement in the juvenile justice system, as well as explore the impact of reading interventions during incarceration.

# Encouraging students to improve their reading is a key to their success in school and in life.

Arne Duncan, 2009, Secretary, U.S. Department of Education

## Expanding the Definition of Literacy

Literacy is often defined simply as the ability to read, write, speak, listen, and think critically. More recently, some have argued for expanding the definition to reflect societal changes. For instance, the National Council of Teachers of English (NCTE) and the International Reading Association have added visual literacy to the traditional list of competencies. Visually literacy is the ability to recognize and understand ideas illustrated with images or pictures. Others have added components related to increased technological demands. Technology literacy has been defined by the U.S. Department of Education (1996) as “computer skills and the ability to use computers and other technology to improve learning, productivity, and performance.” Others have further broadened the definition to include the ability to apply literacy skills in context (e.g., NCTE, 2006). Therefore, for this brief, literacy is defined and discussed in this broader context.

## Literacy and Juvenile Justice

Literacy, or the ability to understand, interpret, use, create, compute, evaluate, and communicate information associated with varying contexts and presented in varying formats, plays a pivotal role in shaping a youth’s trajectory in life. Literacy represents a key determinant of academic, social, and economic success (Snow, Burns, & Griffin, 1998). These skills also represent an essential component to having a fulfilling life and becoming a successful employee and citizen (Moore, Bean, Birdyshaw, & Rycik, 1999). In contrast, research has shown that low literacy skills create significant barriers to economic and social success. According to the National Center for Education Statistics, adults with lower levels of literacy earn lower salaries. A study estimated that 17 to 18 percent of adults with “below basic” literacy skills earned less than \$300 a week, whereas only 3 to 6 percent of adults with “proficient” literacy skills earned less than \$300 a week (Kutner et al., 2007).<sup>2</sup>

Research demonstrates that students with poor academic skills are more likely to be delinquent and subsequently involved in the juvenile justice system. Children with learning difficulties and disabilities have a higher propensity for gang membership. Specifically, children with learning disabilities are 3.6 times more likely to join gangs, while youth with low academic achievement are 3.1 times more likely (Hill, et al, 1999; Hill, Lui, & Hawkins, 2001). Additionally, in a meta-analysis of the academic performance–delinquency relationship, researchers estimated that 35 percent of academically low-performing children became delinquent compared with only about 20 percent of academically high-performing children (Maguin & Loeber, 1996). A large number of youth who are incarcerated are also marginally literate or illiterate and have already experienced school failure (Leone, Meisal, & Drakeford, 2002). Many youth who are incarcerated have a history of truancy and grade retention. A study of more than 400 incarcerated ninth-graders found that in the year prior to incarceration, these students had attended school barely half the time and were failing most of their courses (Balfanz, Spiridakis, Neild, & Legters, 2003). Despite academic difficulties and truancy, there is evidence that youth who are incarcerated or formerly incarcerated maintain educational

aspirations. Over 75 percent of adolescents in facilities stated that they plan to return to school and that they would like to receive a diploma, but only roughly half of these students actually succeed in returning to school (Leblanc, 1991). Yet, studies have established that the majority of these youth fail to fulfill their academic ambitions and that recidivism is more likely than academic success. The study by Balfanz and colleagues (2003) indicated that although most students returned to the public school system within a year, only an estimated 15 percent succeeded in graduating. Likewise, a national report on youth in correctional facilities estimated that depending on how recidivism is measured (e.g., rearrest, referral to court, reconviction, reincarceration), rates vary from 12 to 55 percent (Snyder & Sickmund, 2006).

Academic outcomes achieved during incarceration have an important impact on the achievements of youth after their release and have been shown to reduce recidivism. A Criminal Justice Policy Council study reported that 37 percent of young prisoners were less likely to return to prison if they learned to read during their incarceration (Susswein, 2000, as cited in Keith & McCray, 2002). Additionally, a follow-up study found youth who earned a GED certificate and completed a vocational program during incarceration were three times more likely to be employed within six months of release than those who had not completed such programs. Youth who earned a GED or completed a vocational program were also twice as likely to be employed six months after their release as youth who had not completed either program (Black et al., 1996).

Given that the majority of youth fail to return to their local school district, earn a GED, or obtain a high school diploma either during incarceration or within 30 days of release, there is an apparent need to improve educational and transitional services in juvenile justice facilities. During the 2007–08 school year, federally funded Title I, Part D, programs for children and youth (designed to provide supplemental educational support for students who are neglected, delinquent, or at risk) reported that only 33 percent of youth in juvenile detention or juvenile correction programs returned to their local school district following incarceration and only 5.6 percent earned a

1 This amount is based on the average cost of state-funded, post-adjudication residential facilities in which 70 percent of youth in the juvenile justice system reside.

2 The authors define “Below Basic” as indicating no more than the most simple and concrete literacy skills and “Proficient” as indicating the skills necessary to perform more complex and challenging literacy tasks.

## The GED and Its Relationship to Literacy

The GED tests give individuals who did not complete a formal high school program the opportunity to certify their attainment of high school-level academic knowledge and skills. The GED assesses five competency areas:

1. Language Arts, Reading
2. Language Arts, Writing
3. Mathematics
4. Science
5. Social Studies

Although the first two areas are directly associated with traditional literacy skills, all competency area subtests require literacy skills to comprehend the items and response options. Therefore, literacy is a requisite skill for the GED. For more information about the GED, see <http://www.acenet.edu/Content/NavigationMenu/ged/index.htm>

GED or a high school diploma.<sup>3</sup> Developing targeted educational services for youth who are incarcerated through proven strategies such as intensive, explicit instruction in foundational reading skills represents a critical step toward reducing recidivism and improving the trajectory of these youths following incarceration.

### Impact of Reading Interventions

Youth who are involved in the juvenile justice system are predominately male, disproportionately members of minority groups, eligible for special education services or mental health services, and reading below grade level (Federal Advisory Committee on Juvenile Justice, 2006; Puzzanchera, 2009; Quinn, Rutherford, & Leone, 2001). In the 2006 Census of Juveniles in Residential Placement, nearly 93,000 youth resided in juvenile residential facilities. Of those, approximately 85 percent were males and 15 percent females. Minorities were also disproportionately represented. Thirty-five percent of involved youth were white while 65 percent of involved youth are minorities (i.e., 40 percent black, 20 percent Hispanic, 2 percent American Indian, 1 percent Asian, 1 percent other) (Mukasey, M., Sedgewick, J., Flores, J., 2009). In 2000, the Office of Special Education Programs (OSEP) reported the prevalence of disabilities among school-age children in the United States as 9 percent, compared with a conservative estimate of 32 percent within the juvenile justice system (Quinn et al., 2001). This situation presents a unique challenge to schools in juvenile justice facilities that has lifelong ramifications for the involved youth. As a result, increased attention should be placed on the development of literacy skills promoting social, academic, and postsecondary outcomes.

The types of juvenile justice residential facilities are as diverse as the youth served. These facilities can be centralized or decentralized, short-term or long-term, and can also vary greatly in size and security features. According to the 2004 Juvenile Residential Facility Census, the types and prevalence of facilities varies:

<b>Detention Center</b>	<b>27%</b>
<b>Shelter</b>	<b>7%</b>
<b>Reception/Diagnostic Center</b>	<b>3%</b>
<b>Group Home</b>	<b>31%</b>
<b>Boot Camp</b>	<b>2%</b>
<b>Ranch/ Wilderness Camp</b>	<b>4%</b>
<b>Training School</b>	<b>8%</b>
<b>Residential Treatment Center</b>	<b>31%</b>

For more information about juvenile justice facilities see NDTAC's *Fact Sheet: Juvenile Justice Facilities* (Read & O'Cummings, 2010).

### Current Knowledge on Literacy in Juvenile Justice Settings

The need for quality education in juvenile justice facilities has been well documented. In the past decade, five reading intervention studies were implemented in juvenile correctional facilities, and empirical evidence has emerged from these studies about successful teaching strategies for this population. Table 1 provides an overview of these studies, including identifying the author, year of publication, purpose, interventions and outcomes. Although these studies have limitations (e.g., small sample sizes, threats to internal and external validity), they suggest best practices for the field. Specifically, the authors validate the use of intensive interventions such as Corrective Reading and direct, explicit instruction that are effective instructional strategies for reading in the juvenile justice setting.

These studies followed from 4 to 49 youth. Participants reflected the demographics of the general population of youth in juvenile justice facilities—teenage youth who were most frequently male and minority. Many had identified disabilities, including emotional disturbance, learning disabilities, and mental retardation. Participants exhibited reading skills that were below expectancy regardless of the different measures used to gauge reading skill across studies. When reported in grade-level equivalents, participants' baseline reading levels varied from grade 1 to grade 6. When standard scores and percentiles were reported, similar reports of student reading deficits were

documented. For example, Drakeford (2002) reported that all participants scored at or below the 25th percentile and Houchins and colleagues (2008) documented that all participants performed at or below a standard score<sup>4</sup> of 85 on a reading comprehension placement test.

All five studies explored how to improve students' decoding, fluency, and comprehension skills, alone or in combination. Specific reading interventions (e.g., Corrective Reading, direct instruction strategies, Read Naturally) were implemented three to five times a week for a period of 6 to 12 weeks. In one study, the teacher implemented the intervention strategy; in the other studies, interventions were supplemental to existing instruction and implemented by a study team member. Interventions were implemented in a variety of groupings, from one-on-one settings to small and large groups.

The studies all reported some positive outcomes and suggest strongly that systemic and intensive reading interventions can have potential short-term positive impacts on reading fluency, accuracy, and comprehension. In addition, in one study, participants reported a more positive attitude toward reading after being involved in the intervention. Neither the long-term retention of reading skills nor the relationship between reading skill acquisition and post-incarceration outcomes were assessed or documented.

Additional research has focused on the school climate in which academic interventions are implemented. Through this work, it is apparent that careful attention needs to be paid to building positive social and emotional conditions for learning. Research has suggested that children who do not feel attached or committed to their school are approximately twice as likely to join gangs (Hill et al, 1999). Therefore absence of these positive social and emotional conditions for learning can thwart learning despite the quality of instruction. For more information, see *Improving Conditions for Learning for Youth Who Are Neglected or Delinquent* (Osher, Sidana, & Kelly, n.d.).

3. Calculated from Title I Part D, Data for the SY 2007–08. Data are publicly available at <http://www.neglected-delinquent.org>.

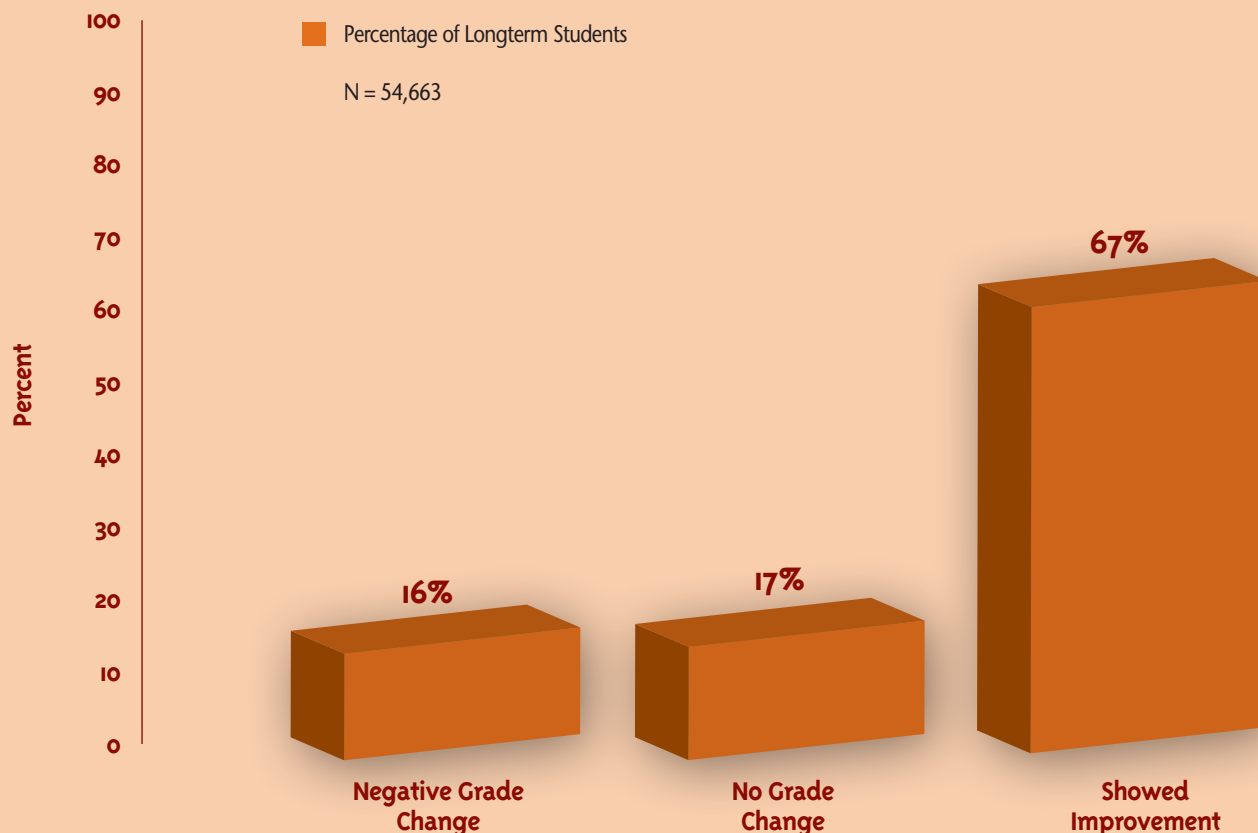
4. A Standard Score indicates how far a particular score is from a test's average. The unit that tells the distance from the average is the standard deviation (sd) for that test. In this example, the average is 100 and the sd is 15.



**Table 1: Reading Intervention Studies in Juvenile Justice Settings**

Author (year)	Purpose	Intervention	Outcomes
Allen-DeBoer, Malmgren, and Glass (2006)	Studied the effects of a systematic, phonics-based reading intervention on oral reading fluency and accuracy	30-minute reading instruction, using an adapted version of <i>Corrective Reading</i> , provided daily in a one-on-one session over 9 weeks	<p>Oral reading fluency increased and error rates decreased for each participant in the intervention phase, while participants also experienced improvements in reading as measured pre- and postintervention on a standardized reading assessment.</p> <ul style="list-style-type: none"> <li>■ Oral reading fluency increased by an average of 36 words per minute (wcpm).</li> <li>■ Error rate decreased by an average of 2 errors per minute</li> <li>■ Reading fluency scores increases ranged from a grade equivalent of 0.3 up to 4.1.</li> </ul>
Drakeford (2002)	Studied the effects of an intensive literacy program in a juvenile detention center	60 minutes of Science Research Associates (SRA) <i>Corrective Reading</i> instruction provided three evenings a week for 8 weeks	<p>Positive gains in fluency and attitude were documented.</p> <ul style="list-style-type: none"> <li>■ All participants made gains as measured by the Corrective Reading Placement Test, with most increasing at least one level.</li> <li>■ As measured by the Rhody-Secondary Reading Attitude Assessment, attitudes toward reading appeared to be more positive after the 8 weeks.</li> </ul>
Coulter (2004)	Studied a reading intervention that fits the needs and circumstances of juveniles and facilities	From 5 to 48 tutoring sessions based on Direct Instruction Reading and the <i>Corrective Reading</i> program	<p>Improved reading performance was documented.</p> <ul style="list-style-type: none"> <li>■ On average, students gained three times the number of correct words per minute per week of instruction as expected.</li> <li>■ Students who participated in more than 10 sessions and fewer than 20 sessions improved an average of 1 grade level in passage reading and reading comprehension.</li> </ul>
Houchins, Jolivette, Krezmien, and Baltodano (2008)	Studied the impact of explicit instruction in decoding, comprehension, and fluency on reading achievement of students	1 hour of sustained explicit reading instruction in word study, fluency, and comprehension three times a week for 12 weeks	<p>Explicit instruction in decoding, comprehension, and fluency can increase reading performance of youth who are incarcerated in a relatively short time.</p> <p>Limited evidence that smaller group instruction benefitted students more than larger group instruction.</p>
Malmgren and Leone (2000)	Studied the effects of an intensive 6-week summer reading program	6-week multifaceted intensive reading program that included 3 hours of direct instruction and whole language reading activities a day, 5 days a week for 6 weeks	<p>Participants demonstrated significant improvement on four of four reading subtests.</p> <ul style="list-style-type: none"> <li>■ Gains on the comprehension subtest were not statistically significant.</li> <li>■ Overall reading abilities of participants remained low.</li> </ul>

**Figure 1. Percent of Long-Term Students in Juvenile Corrections and Detention Demonstrating Improvement on Pre-Posttest Exams**



Source: 2007–08 Consolidated State Performance Report. U.S Department of Education

Data collected from facilities receiving supplemental Title I, Part D, funding suggest that students are capable of improving their reading skills during incarceration. Juvenile detention and juvenile correction programs that receive these funds are required to track reading performance of youth who are up to 21 years of age and reside in

a facility 90 days or longer using pre- and posttest assessments. In the 2007–08 school year, 37 percent<sup>5</sup> of long-term students in federally funded juvenile delinquent or juvenile corrections programs were reported to have tested below grade level in reading upon entry to the facility (U.S. Department of Education, 2008). Although

these data do not indicate that all students have achieved an appropriate level of literacy for their grade, Figure 1 illustrates that the majority (67%)<sup>6</sup> of long-term students in these programs demonstrated some improvement on reading pre-posttest exams<sup>7</sup> (U.S. Department of Education, 2008).

## Conclusion

A link between literacy and positive youth and adult outcomes has been established, especially as related to the juvenile justice context. Emerging research suggests that using systemic and intensive reading interventions can have a positive impact on youth during incarceration, may improve their attitudes towards reading, and influences academic and vocational outcomes following incarceration. However, the current research on literacy strategies is limited due to the small number of recent studies conducted, focus on short-term interventions without consideration to long-term outcomes, small sample sizes used that are not representative of all youth (e.g., English Language Learners), little attention paid to the context in which the study was implemented, and the narrow breadth of components of literacy studied. In the absence of a strong empirical knowledge base on teaching comprehensive literacy skills within a juvenile justice setting, reliance on validated strategies for similar (e.g., youth who are neglected, homeless, or at-risk) or more general populations with thoughtful adaption for the context and continued analysis of the impacts on students is suggested.

5. Sample includes data from 158,903 long-term students reported from 51 states.

6. Sample includes data from 54,663 long-term students with complete pre/posttest data reported from 50 states.

7. Improvement results reflect data from a variety of pre-posttest instruments across facilities and states. Few states require juvenile corrections and detention programs to use tests uniformly across all facilities.

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