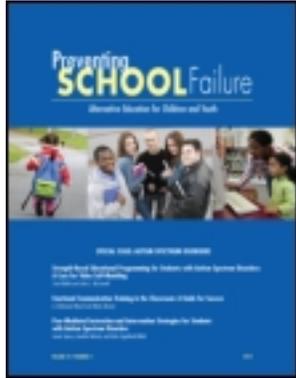


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Reading Instruction for Students With High-Incidence Disabilities in Juvenile Corrections

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This study was designed to obtain (a) a national picture of the characteristics of special educators who provide reading or English instruction in juvenile corrections facilities and (b) characteristics of the schools in which they work and the students who they serve. In addition, the study was designed to gather information on teacher use of specific reading instructional strategies. A national random sample of 108 (28.6%) reading or English teachers responded to a mail and online survey. No statistically significant differences existed between responsive and nonresponsive schools. Results indicated that teachers commonly hold bachelor's degrees and have an average of 10.9 years teaching experience. Teachers reported using some research-based instructional approaches to comprehension instruction, but they rarely integrate technology or peer-mediated instructional strategies into their instruction. A majority of teachers reported that at least 50% of their students with high-incidence disabilities could not read well enough to gain basic information from text. Additional results and implications are provided.

Keywords: juvenile corrections, reading, special education, teacher characteristics

Youth involved with the juvenile corrections system commonly have significant academic difficulties, particularly in the area of reading (Allen-DeBoer, Malmgren, & Glass, 2006). In general, incarcerated youth function below peers who are not incarcerated on reading measures, lagging approximately 4 years behind public school peers (Harris, Baldodano, Bal, Jolivet, & Mulcahy, 2009; Krezmien, Mulcahy, & Leone, 2008). Other researchers have reported that incarcerated high school students function academically at upper elementary or middle school levels (Brunner, 1993; Coulter, 2004; Zamora, 2005). In another study, these youth were one standard deviation below expected grade levels on standardized reading achievement assessments (Snowling, Adams, Bowyer-Crane, & Tobin, 2000). Common difficulties include conceptualizing and processing information, as well as reading comprehension (Beebe & Mueller, 1993; Coulter, 2004).

Problems with reading, whether the result of existence of a disability or of other issues such as poor attendance in school, have serious and longstanding effects on youths' ability to successfully complete school and integrate into

the community and workforce. Several researchers have identified links between illiteracy and problem behavior, dropping out, incarceration, and recidivism (Archwamety & Katsiyannis, 2000; Katsiyannis & Archwamety, 1999; Jolivet, Stichter, Nelson, Scott, & Liaupsin, 2000; Kutner et al., 2007; Lembke, 2004; Snyder & Sickmund, 1999). After completing high school, youth with poor reading skills are also less likely to hold full-time jobs (Kutner et al., 2007). In contrast, higher levels of literacy skill are associated with, among other positive life outcomes, more stable employment, higher wages, and higher levels of social engagement (McCracken & Murray, 2009).

The high percentage of youth with reading difficulties in juvenile corrections is likely related to the overrepresentation of youth with emotional/behavioral disorders (EBD) and learning disabilities (LD) in secure care. As subgroups, youth with EBD and LD are at tremendous risk for academic failure and have serious deficits in reading, whether in juvenile corrections or in public schools (Carr-George, Vannest, Wilson, & Davis, 2009; Greenbaum et al., 1996; Lane, Barton-Arwood, Nelson, & Wehby, 2008; Lane, Carter, Pierson, & Glaeser, 2006; Lyon, 1995; Mastropieri, Scruggs, & Graetz, 2003; Nelson, Benner, Lane, & Smith, 2004; Reid, Gonzales, Nordness, Trout, & Epstein, 2004; Trout, Nordness, Pierce, & Epstein, 2003). This problem is amplified by the fact that about 40% of youth in juvenile corrections are classified with a disability (Gagnon,

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Barber, Van Loan, & Leone, 2009) compared with only 9.2% of students in the general population (U.S. Department of Education, 2009a). In the general population of students between 12 and 17 years of age, only 10.5% of youth with disabilities are classified with EBD (U.S. Department of Education, 2009b). In contrast, almost half of youth with a disability in juvenile corrections are identified with EBD (Quinn, Rutherford, Leone, Osher, & Poirier, 2005; Stizek et al., 2007). Relatively equal percentages of the total youth with disabilities in juvenile corrections and in public school are classified with LD (38.6% and 46.4%, respectively; Quinn et al., 2005; Stizek et al., 2007). However, the scope of the academic needs of youth in corrections is most apparent when considering the significant overrepresentation of youth with disabilities in juvenile corrections versus regular schools.

In light of the broad concerns with the reading skills of youth in juvenile corrections and the high percentage of youth identified with disabilities, use of research-based instruction is critical. Moreover, research-based instruction across educational settings is supported by federal regulations (e.g., No Child Left Behind Act of 2001, 20 U.S.C. §1114 [2008]). In response to a 1997 congressional directive, the National Reading Panel (NRP) was formed and charged with making recommendations regarding content, methods and approaches to beginning reading instruction on the basis of a comprehensive review of extant research. The resulting report (National Institute of Child Health and Human Development, 2000) suggested five essential components of balanced, effective reading instruction: phonemic awareness, phonics, fluency, vocabulary, and text comprehension. While the NRP's findings pertain most directly to the teaching of reading in Kindergarten through Grade 3, the importance of applying and expanding those findings to reading instruction at the secondary level is starting to be systematically explored (see Biancarosa & Snow, 2006). Scammacca et al. (2007) asserted that adolescence is not too late to intervene, and Malmgren and Trezek (2009) summarized a body of literature demonstrating the effectiveness of interventions targeting the five components of reading instruction identified by the NRP used specifically with adolescent readers. In addition to the five areas of reading instruction, recommendations specific to strengthening the reading skills of struggling adolescent readers frequently point to the importance of incorporating of technology into reading instruction (e.g., see Kamil, 2003). It is unfortunate that teachers in juvenile corrections who typically teach at the middle and high school levels may not view the teaching of reading as their responsibility or they may lack the skills to do so—fueling a disconnect between recommendations and practice (Deshler, 2002; Parriss & Block, 2007).

Identification of approaches to reading instruction and intervention in juvenile corrections across the United States can provide an initial understanding of the status of reading instruction in those settings and can shed light

on gaps between recommendations and practice, as well as the possible professional development needs of teachers in these settings. In addition, an understanding of reading instructional practices, student and teacher characteristics, and contextual factors related to teaching in juvenile correctional facilities will allow researchers to consider issues that either facilitate or hinder use of research-based instruction in secure care. Thus, the present research focuses on providing the first national picture of reading instruction for juvenile in juvenile correctional facilities. We used descriptive statistics to answer three research questions:

1. What are the descriptive characteristics of special education reading or English teachers who work in juvenile correctional schools?
2. What are the characteristics of the school and student populations that these teachers serve?
3. What instructional practices do special education teachers provide to students in reading and what is the basis of their pedagogical decisions?

Method

Instrumentation/survey development

Questions for this national survey were based on several sources of information. The first author reviewed the literature on effective instructional practices for students with EBD and LD, as well as the NRP's (National Institute of Child Health and Human Development, 2000) recommendations for effective reading instruction in light of current educational reform efforts. Next, the principal investigators discussed potential research questions and survey items with nationally recognized experts in the field of special education. Last, the investigators shared a draft of the survey with professionals from juvenile correctional schools for their feedback on clarity of items and directions for survey completion. Survey questions were modified as needed based on feedback. Questions in the survey focused on five central topics: (a) teacher background information; (b) instructional strategies that teachers use to aid students with EBD and LD in reading and reasons for pedagogical decisions; (c) characteristics of students and school; (d) teacher confidence in ability to teach secondary reading/English; and (e) curriculum, assessment, and accountability policies and practices. The current report focuses on data from the first three topic areas. The entire survey consisted of 39 items and took approximately 30 min to complete.

Items in the section on instructional strategies used by teachers were culled from the instructional recommendations provided by the NRP in each of the five areas of reading instruction: phonemic awareness, phonics, fluency, vocabulary, and comprehension. The survey contained 21 items that represented types of instruction recommended

as effective by the NRP. One strategy (“Provide opportunity for independent silent reading”) was also included on the survey because even though there was not research evidence of a causal relation between silent reading and improvement in reading outcomes, the authors of the NRP Report indicated that this strategy is used widely. For each of the 22 instructional strategies listed on the survey, responding teachers were asked to indicate how often they used the strategy (i.e., daily, 2–4 times per week, 1–4 times per month, or never). In those cases in which the teacher indicated that he or she never used a strategy, the teacher was asked to indicate why not. A list of possible reasons was provided; however, respondents could also fill in their own reason.

Sample

The original universe of juvenile correctional schools came from the 2003 Directory of Adult and Juvenile Correctional Departments, Institutions, Agencies and Probation and Parole Authorities, published by the American Correctional Association. To identify facilities, graduate assistants reviewed program descriptions listed in the directory for key descriptors to indicate that the facility met the following criteria: (a) facility served committed youth, (b) facility was closed or “secure,” and (c) education services were provided on site to students in Grades 7–12. Initial examination of the directory resulted in identification of 721 facilities appropriate for inclusion in the sample. Facilities listed under certain subheadings, such as *juvenile community corrections*, *juvenile probation or parole*, and *juvenile detention* were automatically excluded because they were designed, by definition, for youth being detained (i.e., commonly short-term facilities for youth who have not been adjudicated delinquent). Other reasons for exclusion from the sample included program descriptions that (a) indicated the facility was not a closed facility (e.g., work release, reporting center, aftercare); (b) stated no education was provided at the facility; or (c) indicated other types of programs were the focus of the facility (e.g., assessment units, receiving centers, orientation facilities). In addition, several states did not provide adequate information within the facility descriptions. In such cases, graduate assistants called the facilities individually and asked a series of questions to determine their appropriateness for inclusion in the sample. As a final reliability check of the sample facilities adhering to the sampling frame, state department of corrections websites were reviewed for facility information. As a result, 63 discrepancies between the directory and the state websites were identified. These facilities were individually called to determine sample eligibility. The final pool of schools from which participants could be drawn consisted of 483 facilities that met inclusion criteria. From the identified list of facility schools meeting the criteria, a random sample of 400 schools were selected to comprise the research sample. The total number of schools was chosen based on an

anticipated 50% of teacher responses to the survey, which would have provided an adequate sample size with a 95% confidence level and 5% confidence interval (i.e., $n = 196$).

Survey administration

The researchers conducted five separate mailings of the survey materials at approximately 3-week intervals. Addressed to the school principal at the juvenile correctional facility, each mailing contained a letter of introduction and three surveys: one to be completed by the principal, one to be completed by a special education math teacher, and one to be completed by a special education reading or English teacher, which was operationally defined as any teacher directly responsible for providing reading instruction to students with high-incidence disabilities. The letter of introduction provided directions for the principal as to how to identify which special education teachers should complete the surveys in situations where there were multiple eligible teachers (i.e., principals were instructed to alphabetize potential respondents and give the survey to the first teacher on the alphabetized list). Each mailing included business reply envelopes for each survey. As an incentive for completing the survey, a \$2 bill was also attached to each survey in the first mailing. Throughout this period, graduate assistants attempted to contact the facilities by phone to encourage nonrespondents to submit their surveys.

The survey letter also included directions for completing an identical secure online version of the survey created using Perseus SurveySolutions software. Respondents choosing to complete the survey online received a unique URL.

Response rate

Despite efforts to ensure all facilities met the sample criteria, three surveys were returned because of facility closure. After surveys were returned, we removed 12 additional schools from the sample because of misidentification as a juvenile correctional school. We removed eight additional surveys from the sample because individuals from the facility reported that their school did not meet the research criteria. A total of 108 reading or English special education teacher surveys were returned from the 377 qualified schools for a response rate of 28.6%. Of the surveys returned, 1% ($n = 1$) was submitted electronically.

Respondents and nonrespondents

In light of the unsatisfactory response rate, the researchers compared characteristics of respondents and nonrespondents to ensure there were no systematic differences and reduce the possibility of nonresponse bias (Biemer & Lyberg, 2003). Three school-level variables were selected for the purpose of respondent versus nonrespondent

comparison: (a) region (i.e., Midwest, Northeast, West, or South); (b) gender of youth held in the facility (i.e., male, female, cogender); and (c) whether the facility is a state-operated institution or a privately contracted facility. Chi-square analysis of proportions of respondents versus non-respondents on all three variables resulted in no significant differences between the groups; therefore, the effect of non-response bias in the findings is limited.

Reliability of data entry

All data collection procedures were closely monitored and recorded to address possible threats to reliability and to enhance replicability of the research findings (Fink, 1995; Yin, 1994). Graduate assistants involved in the project entered all survey data into SPSS. To ensure accuracy of data entry, reliability checks were done for 20% of the submitted surveys. This included checks of coding reliability in those cases where decision rules were applied to open-ended responses. We calculated agreement using the following formula:

$$\text{Number of Agreements} / \text{Number of Agreements and Disagreements} \times 100$$

Reliability for the reading/English teacher survey was 100% for the coding of open-ended responses and 99.4% for the entry of data from the surveys. All issues of data entry and reliability were addressed.

Table 1. Survey Question Topics

Teacher characteristics
Gender
Education certifications
Highest degree earned
Total number of years as a special educator
Total number of years as a reading or English teacher
Teaching capacity (e.g., full-time self-contained, full-time resource teacher)
Student characteristics
Number with various disabilities
Number committed
Average length of enrollment for committed students
Ethnicity
Gender
Overall student reading performance
School characteristics
Type of facility (commitment only; both detention and commitment)
School's organizational structure
Average caseload
Average number of students enrolled in reading or English classes
Average number of minutes students with Ebd or Ld spend in reading instruction

Data analysis

We used descriptive statistics to answer three research questions:

1. What are the descriptive characteristics of special education reading/English teachers who work in juvenile correctional schools?
2. What are the characteristics of the school and student populations that these teachers serve?
3. What instructional practices do special education teachers provide to students in reading and what is the basis of their pedagogical decisions?

Table 1 provides a summary of the survey questions. Some respondents chose to not answer every survey question. Therefore, some variation exists in the number of responses summarized for individual survey items. Also, for questions that asked teachers to check all that apply, cumulative percentages are not provided.

Results

Teacher characteristics

Teachers responded to a series of questions concerning their personal and job-related characteristics (see Table 2). Of the respondents, nearly three quarters (74.1%; $n = 80$) were female. More than half of all respondents reported their

Table 2. Responding Teacher Characteristics of Special Education Reading/English Teachers

	<i>n</i>	%
Gender		
Male	28	25.9
Female	80	74.1
Highest Level of Education		
Bachelor's	57	52.8
Master's	47	43.5
Doctoral	3	2.8
Certification*		
General education reading/English teacher	13	12.0
Special education EBD/LD	41	38.0
Special education cross categorical	46	42.6
Elementary education	35	32.4
Secondary education	34	31.5
Other	37	—
Current Teaching Position		
Full-time self-contained teacher	40	37.7
Full-time resource teacher/consultant	21	19.8
Part-time special educator; part-time general educator	15	13.9
Team teach with a general educator	6	5.7
Other	24	22.6

Note. * = Respondents checked all that apply and percentages therefore sum to greater than 100.

Table 3. Years of Teaching Experience Held by Respondents

	%(<i>n</i>)	
	New (0–3 years)	Experienced (4+ years)
Teaching		
Special education	33.0 (34)	67.0 (69)
Reading or English	21.3 (23)	78.7 (85)
At the current school	40.2 (43)	59.8 (64)

highest level of education was a bachelor's degree (52.8%; $n = 57$). We also asked teachers to report their certification status. Respondents were allowed to choose "check all that apply." Most respondents held a special education teaching certification, with 72 (66.7%) reporting that they held a cross-categorical license and/or a special education license in EBD or LD. Sixty-eight respondents (63.0%) held general education teaching certification. The modal number of certifications held by respondents was one. However, 33 respondents held two certifications, 16 respondents held three certifications, 2 respondents held four certifications, and 1 respondent held five certifications. In terms of teaching positions, 37.7% ($n = 40$) taught full-time in a self-contained special education classroom within the facility, 19.8% ($n = 21$) were full-time resource teachers or consultants, and 22.6% ($n = 24$) identified other responsibilities.

Table 3 summarizes the years of teaching experience reported by the respondents. A total of 67% ($n = 69$) of respondents reported having 4 or more years of experience as a special educator. The mean number of years respondents had worked as a special educator was 10.9 ($SD = 9.87$), with a range of 0–36 years. Nearly 80% ($n = 85$) of the respondents had 4 or more years of experience as a reading or English teacher, with the mean number of years as a reading or English teacher being 12.74 ($SD = 9.56$) and range of 0–36 years. Also, 59.8% ($n = 64$) of respondents reported having 4 or more years experience teaching at their current juvenile correctional facility. The mean number of years teaching at the current school was reported as 7.10 ($SD = 7.12$), with a range of 0–33 years experience.

School and student characteristics

Teachers were asked to provide information about their facility and school's characteristics, including school structure and population served (see Table 4). With regard to facility function, 55.3% ($n = 58$) of respondents indicated that the facility in which they work serves youth who are detained, in addition to youth who are committed. Respondents reported wide variation in terms of average length of stay for youth at the facility. The average length of stay was reported as 9.4 months ($SD = 5.77$; range = 1–36). With regard to the structure of the school within the facility, 80.2%

Table 4. Characteristics of Facility and School Operation

	<i>n</i>	%
Youth typically placed in the facility from		
Within LEA	2	1.9
Within the state	94	87.0
Multiple states	7	6.5
Other	2	1.9
School's organizational structure		
Public school	73	80.2
Private	14	15.4
Other	4	4.4
Number of committed students who attend this school		
1-20	40	40.4
21-40	30	30.3
41-60	11	11.1
61-80	6	6.1
81-100	0	0
101+	3	3.0
NA*	10	10.1
Average length of stay for committed students (months)		
Less than a full month	1	1.0
1-6	38	36.1
7-12	33	31.5
12-18	28	26.6
19-24	4	3.8
24+	1	1.0

Note. LEA = local education agency; IEP = Individualized education program; * = some facilities were combined commitment and detention, but there were no committed youth at the time of the survey.

($n = 73$) of respondents reported that their school is part of the public school system.

Respondents also provided demographic and instructional information about students on their caseloads and in their reading/language arts classes. Respondents' average caseload was 10 students ($SD = 15.82$; range = 7–65). Regarding demographic characteristics of students served, respondents provided instruction mainly to male students (2,842 male youth compared with 445 female youth). The respondents provided instruction to 603 Hispanic students, 1,342 African American students, 45 Asian or Pacific Islander students, 1,395 Caucasian students, 93 Native American or American Indian students, and 151 biracial students. Respondents provided special education services to 996 students with LD, 1,051 students with EBD, 147 students with intellectual disabilities, and 210 students with some other special education label. Class sizes ranged from 2 to 50 students, with a mean of 12.4 ($SD = 8.7$). In response to a query asking approximately what percentage of students with LD or EBD on their caseload could not read well enough to acquire basic information from text, (i.e., below a basic level as defined by the National Assessment of

Table 5. Frequency of Teacher Use of Reading Instructional Strategies

Reading Instructional Strategy	<i>M</i> (<i>SD</i>)	Always (daily)	Often (2–4 per week)	Sometimes (1–4 per month)	Never
Pose comprehension questions to students as they read and provide immediate feedback	1.55 (0.62)	51.9 (56)	41.7 (45)	6.5 (7)	0
Provide vocabulary instruction	1.80 (0.73)	38.0 (41)	42.6 (46)	18.5 (20)	0
Arrange for students to work individually during reading instruction	1.84 (.78)	35.2 (38)	47.2 (51)	12.0 (13)	3.7 (4)
Direct students to ask clarifying questions as they read	1.88 (0.68)	28.7 (31)	51.9 (56)	16.7 (18)	0
Use writing instruction to support reading instruction	1.90 (0.78)	32.4 (35)	43.5 (47)	19.4 (21)	1.9 (2)
Provide independent silent reading	1.92 (0.84)	36.1 (39)	38.0 (41)	22.2 (24)	2.8 (3)
Teach to summarize readings	1.95 (0.69)	25.9 (28)	51.9 (56)	21.3 (23)	0
Provide repeated, guided oral reading	1.96 (0.84)	33.3 (36)	38.0 (41)	24.1 (26)	2.8 (3)
Directly teach study skills	2.00 (0.68)	22.2 (24)	56.5 (61)	20.4 (22)	0.9 (1)
Teach students reading in small groups	2.06 (1.05)	39.8 (43)	25.9 (28)	21.3 (23)	12.0 (13)
Utilize sight word instruction	2.19 (0.94)	25.9 (28)	37.0 (40)	25.9 (28)	9.3 (10)
Use cooperative learning strategies in reading	2.27 (0.95)	24.1 (26)	34.3 (37)	30.6 (33)	10.2 (11)
Directly teach text structure	2.30 (0.85)	18.5 (20)	36.1 (39)	36.1 (39)	5.6 (6)
Directly teach spelling skills to support reading instruction	2.31 (0.93)	22.2 (24)	31.5 (34)	34.3 (37)	9.3 (10)
Directly teach phonemic awareness skills	2.45 (0.97)	17.6 (19)	33.3 (36)	29.6 (32)	15.7 (17)
Direct students to utilize background knowledge when reading	2.47 (0.82)	12.0 (13)	37.0 (40)	41.7 (45)	8.3 (9)
Teach comparison skills	2.64 (0.84)	9.3 (10)	31.5 (34)	44.4 (48)	13.9 (15)
Use graphic and semantic organizers	2.67 (0.84)	8.3 (9)	32.4 (35)	43.5 (47)	15.7 (17)
Utilize systematic phonics instruction	2.67 (0.96)	11.1 (12)	31.5 (34)	30.6 (33)	22.2 (24)
Arrange for students to work in tutoring pairs during reading instruction	2.77 (0.90)	10.2 (11)	22.2 (24)	45.4 (49)	20.4 (22)
Use computer software in vocabulary instruction	2.90 (1.15)	18.5 (20)	14.8 (16)	24.1 (26)	41.7 (45)
Utilize hypertext technology for reading instruction	3.42 (0.84)	2.8 (3)	13.0 (14)	20.4 (22)	57.4 (62)

Note. Responses were coded 1 = always, 2 = often, 3 = sometimes, 4 = never. Smaller means indicate more frequent use of the activity.

Educational Progress), 50% of respondents replied that this described at least half of their students with LD or EBD.

Instructional time and teacher use of instructional practices

Teachers were asked to report the average number of minutes of reading instruction provided to students with LD and/or EBD each day. On average, respondents reported providing 67 minutes of reading instruction each day ($M = 66.7$, $SD = 40.13$, range = 0–300).

Teachers also reported on the reading instructional strategies that they were using in their classrooms and how frequently these strategies were used (see Table 5). The most frequently used strategy was asking comprehension questions during reading, with 93.6% ($n = 101$) of respondents indicating frequent use of this technique, (i.e., 2 or more days per week). Arranging for students to work individually was the second most frequently used strategy with 82.4% ($n = 89$) of responding teachers reporting frequent usage. Providing vocabulary instruction was the third most frequently used strategy with 80.6% ($n = 87$) of responding teachers reporting frequent usage.

Teachers also indicated the reading instructional strategies never used in their classroom and the reasons they were not used (see Table 6). The reading instructional strategy used most seldom by responding teachers is the use of hypertext technology. More than half (57.4%, $n = 62$) of responding teachers indicated never using this strategy, mainly because of a lack of training ($n = 24$) and lack of resources ($n = 30$). Similarly, 41.7% of responding teachers ($n = 45$) indicated never using computer software in vocabulary instruction, mainly because of lack of resources ($n = 34$). Although the majority of teachers surveyed felt they provided reading instruction to students who could not read well enough to acquire basic information, 22.2% ($n = 24$) did not provide instruction in phonics and 15.7% ($n = 17$) did not provide phonemic awareness skill enhancement. For both of these strategies, the most often cited reason for not using these techniques was the belief that this type of instruction does not meet the students' identified needs. Many teachers reported never using alternative grouping strategies, such as cooperative learning strategies (10.2%; $n = 11$), arranging tutoring pairs (20.4%; $n = 22$), and teaching in small groups (12.0%; $n = 13$). For each of

Table 6. Teacher-supplied Reasons for Never Using Reading Strategies (10% or more respondents reported never using)

Reading Instructional Strategy	Percentage Never Using the Strategy (%)	<i>n</i>				
		Lack of Training	Lack of Resources	Does not Meet Student's Needs	Does not agree with Views on Teaching	Other
Hypertext technology	57.4	24	30	4	1	8
Computer software for vocabulary instruction	41.7	4	34	5	2	4
Cooperative learning strategies	10.2	0	0	1	0	10
Phonetic instruction	22.2	6	3	13	2	2
Arranging tutoring pairs	20.4	0	0	7	0	12
Comparison skills	13.9	0	0	6	0	9
Phonemic awareness skill enhancement	15.7	3	2	10	3	2
Graphic and semantic organizers	15.7	1	7	1	2	4
Teaching reading in small groups	12.0	0	0	4	0	9

these, the reason most often cited by responding teachers was “other.”

Discussion

The purpose of this study was to obtain information about juvenile correctional schools for committed youth, the special educators who provide reading instruction to students with disabilities in those schools, as well as information about the students they serve. An additional purpose was to obtain detailed information from teachers regarding their provision of reading instruction. The results of our study illuminated several points about the teachers and students in juvenile correctional schools as well as the reading instruction provided to students with EBD and LD.

Teacher characteristics

First, with regard to teacher characteristics, many of the teachers who provide reading instruction to students with EBD and LD in juvenile corrections have substantial teaching experience and hold advanced degrees. Teacher respondents were fairly experienced, (e.g., the mean number of years working as a special education teacher was 9.6), and well educated, with 43.5% having a graduate degree in addition to certification. The present study echoes findings from a parallel study of reading instruction in psychiatric schools in which teachers were similarly experienced and educated (Wilkerson, Gagnon, Melekoglu, & Cakiroglu, 2010).

School and student characteristics

The profile of juvenile correctional schools provides a snapshot of the relation between the facility and the local schools, as well as unique attributes in the student pop-

ulation. Primarily, these are public schools (i.e., 81.8%). Also, many of the schools are relatively small, with a student population of 60 or fewer students. As in the findings of Wilkerson et al. (2010), teachers in the present study reported small class sizes (i.e., $M = 12.4$). The high levels of teacher experience and training previously noted, combined with relatively small class sizes, portends well for the potential of teachers in juvenile correctional settings to meet the reading instructional needs of students with high-incidence disabilities on their caseloads and in their classrooms. Moreover, the student population was somewhat stable, with 63% of students enrolled for more than 7 months and one third of youth enrolled for more than 1 year; potentially allowing teachers sufficient time with students to provide meaningful instruction.

It is also noteworthy that a relatively large number of respondents were new to their current school. Specifically, 40.2% of teacher respondents indicated that they had worked in their current juvenile correctional school for 3 years or less. This may indicate significant attrition from teaching in these settings, a phenomenon common to special education teaching in general (Billingsley, 2004; Boe, Bobbitt, & Cook, 1997; Boe & Cook, 2006). This is a concern because teacher turnover is detrimental for student achievement—particularly for high-risk populations (Watlington, Shockley, Guglielmino, & Felsher, 2010).

Instructional time and teacher use of instructional practices

Regarding instructional practices, we found that a majority of teachers in juvenile corrections use several strategies and approaches that are recommended generally by the NRP as well as highlighted by other experts as effective for addressing the needs of struggling adolescent readers. In contrast, some recommended strategies and approaches were seldom or never used by teacher respondents. Implications of these findings as they relate to the areas of reading instruction

outlined by the NRP are subsequently discussed. In addition, findings related to teacher use of technology are discussed.

Phonemic awareness and phonics. Although comprehension and vocabulary are commonly regarded as the two most critical skill areas for adolescents who struggle to read, recent studies show that many secondary age students also still need support on word decoding (Boardman et al., 2008). In the present study, even though many teachers reported that at least half of their students could not read well enough to gain basic information from text, systematic phonics instruction was reported as one of the least used strategies with 22.4% of teachers ($n = 24$) reporting that they never use this type of instruction and 30.6% ($n = 33$) reporting that they use it only 1–4 times per month.

Fluency. Reading fluency provides a bridge between word reading and comprehension. Fluent readers can read words with ease, freeing cognitive energy to focus on meaning. In contrast, less fluent readers who have not acquired automatic decoding skills must focus cognitive energy on reading individual words; therefore, little energy or attention is available to concentrate on comprehending the text (Armbruster, Lehr, & Osborne, 2001). The NRP explored two approaches typically used to encourage fluent reading: independent silent reading and guided repeated oral reading. Although independent (or sustained) silent reading is frequently used in schools, and was reported as frequently used by our respondents, the NRP discovered no evidence to support the effectiveness of silent reading for developing fluency (Armbruster et al., 2001). Guided repeated oral reading, however, was found to be effective in developing fluency. A variety of repeated reading strategies (e.g., student–adult, choral, tape-assisted, and partner reading) as well as readers’ theatre activities were identified by the NRP as having a positive effects on developing reading fluency. In the present study, 71.3% of teachers reported using repeated guided oral reading on a daily or frequent basis.

Vocabulary. Teachers also reported frequent use of vocabulary instruction to bolster reading, with 38.0% of teachers reporting daily use of vocabulary instruction to support reading and an additional 42.6% reporting use 2–4 times per week. Although our data do not illuminate the specific strategies used by respondents (e.g., whether they used specific word instruction or word learning strategies), their reported frequent use of vocabulary instruction generally is positive. Literacy experts consistently affirm the importance of vocabulary instruction as a means to enhance the comprehension skills of adolescent readers (Kamil et al., 2008; Meltzer, Smith, & Clark, 2002; National Institute of Child Health and Human Development, 2000; Scammacca et al., 2007; Torgesen, Houston, & Rissman, 2007).

Comprehension. Researchers and experts consistently note the importance of providing direct and explicit compre-

hension instruction (Biancarosa & Snow, 2006; National Institute of Child Health and Human Development, 2000; Scammacca et al., 2007; Torgesen et al., 2007). In our study, the most frequently used instructional strategy reported was “posing comprehension questions to students as they read and providing them with immediate feedback,” with 93.6% reporting either frequent or daily use. The use of questioning as a strategy for strengthening student comprehension skills has pros and cons. Some forms of questioning might more accurately be described as informal assessment and therefore have an indirect relationship to increasing student skill. Other forms of questioning can serve as adult modeling of comprehension strategies or scaffolding for student processing. The form and intended function of the questioning that teachers in correctional schools report using to foster comprehension is not evident from the present findings. We suggest future research to examine specific teacher practices and dispositions related to the role and function of questioning students as they read.

Teachers in our study reported frequently teaching students to understand and recognize text structures, one approach for increasing comprehension skills that is widely accepted as effective for adolescent readers. Text structures are the semantic and syntactic ways authors organize written information. Familiarity with text structures promotes comprehension by providing readers with a schema to draw on when processing new text. In the present study, 54.6% of teachers reported directly teaching text structures “often” or “always.”

Another important finding is that teachers in juvenile corrections reported infrequent use of many forms of peer-mediated instruction. Peer-mediated instruction has been identified as a research-based approach that is effective for youth with high-incidence disabilities (Ryan, Reid, & Epstein, 2004). The NRP Report specifically identified use of cooperative learning as one of eight most promising instructional strategies for promoting comprehension. However, using cooperative learning groups, arranging students to work in pairs, and small group instruction were among the strategies most commonly identified by teachers as ones that they “never” use. The most common reason provided for lack of use was “other,” providing little insight into why many of these teachers failed to use such valuable strategies. However, the lack of peer-mediated instruction contrasts sharply with teachers’ reported frequent use of having students work independently and their relatively heavy use of independent silent reading as a reading instructional strategy. Such instructional choices that limit peer interaction are often linked to teachers’ beliefs about the importance of authority and control (Solomon, Battistich, & Hom, 1996), despite evidence that cooperative activities can increase student achievement, engagement, and motivation (Roseth, Johnson, & Johnson, 2008).

Technology. Two other instructional strategies that a sizable number of teachers reported never using (utilizing

hypertext technology and computer software for vocabulary instruction) reflected incorporation of technology in instruction. Underuse of technology is particular a problem because many researchers recommend its use to increase motivation of struggling adolescent readers (e.g., Biancarosa & Snow, 2006; Kamil, 2003; National Institute of Child Health and Human Development, 2000). In addition to the presumed positive influence on motivation, effective use of technology in instruction can also provide adolescents with increased opportunities to practice new and targeted skills, while simultaneously providing teachers with structures to individualize instruction (Biancarosa, 2005; Rozalski, & Engle, 2005).

Use of hypertext is a potentially advantageous application of technology in reading instruction. Hypertext technology gives students access to individualized support through popups that can include definitions and pronunciations of words, background information on new concepts, and, if the software allows, teacher comments and questions. Use of hypertext has been linked to positive effects on secondary students' comprehension of expository text (MacArthur & Haynes, 1995). However, teachers in our study reported little use of technology, and hypertext technology specifically, in their reading instruction because of inadequate technology access or a lack of training. As technology becomes more accessible to teachers in all settings, and as our understanding of the evolving forms and roles that technology can play in the promotion of reading skills and literacy more broadly (e.g., see Leu, 2002), we anticipate use of technology—even in secure settings—will grow.

Limitations

Four limitations with the current research merit acknowledgement. First, the 28.6% response rate was below the commonly accepted level of 50% for mail surveys (Weisberg, Krosnick, & Bowen, 1989). However, a random sample of teachers was used to promote validity and respondent/nonrespondent schools did not differ significantly on any of the comparison variables. A second limitation relates to our use of the NRP Report (National Institute of Child Health and Human Development, 2000) as the basis of our choice of effective reading instructional practices about which to query teachers. The report's recommendations are based on a comprehensive review of intervention literature. However, the majority of research reviewed for the Report was conducted with traditional age, beginning readers (i.e., Kindergarten through Grade 3), rather than adolescents. Since the survey was initially constructed, other reports specific to adolescent readers have been published. Biancarosa and Snow (2006), for example, provide recommendations for adolescent reading instruction. Some of the recommendations (e.g., building motivation to read, utilizing technology) expand beyond those included in the NRP Report. However, others overlap (e.g., directly teaching compre-

hension strategies, incorporating writing instruction as an element of instruction in reading).

A related limitation is our choice of NRP recommended strategies to include on our survey. To limit the length of the survey, only strategies deemed "most promising" were included. In some cases, specific elements and aspects of instruction were omitted in an effort to create a concise instrument. However, such choices limited the specificity of our instrument and ultimately narrowed the conclusions that we can draw from our survey data. With regard to comprehension instruction, for example, the most commonly used strategy noted by our respondents was "posing comprehension questions to students as they read and providing them with immediate feedback." While frequent attention to posing comprehension questions and providing immediate feedback to students is positive, survey questions do not address the ways in which teachers employ this questioning strategy, determine the nature or quality of the feedback provided to students, or identify teacher use of each component of explicit instruction. A final limitation is our reliance on teacher reports of instructional practice, rather than direct observation. Our study provides a much-needed description of the general types of general reading instructional strategies utilized by teachers in juvenile corrections schools. However, more detail about use of specific strategies is needed, as well as factors that promote or inhibit use of research-based strategies.

Implications and future research

The present study focused on characteristics of reading teachers who work in juvenile correctional schools, school and student characteristics, and reading instructional practices and the basis of pedagogical decisions. Key implications and directions for future research are discussed in terms of these primary emphases.

Teacher characteristics

Two teacher-related characteristics have significant implications. First, concerns exist with the high rate of teacher turnover in juvenile correctional schools. Future research should investigate factors that inhibit and promote staff stability in juvenile correctional schools, as that stability relates to the academic success of youth in these settings (Watlington, Shockley, Guglielmino, & Felsher, 2010). Second, despite extensive teacher experience and education, several teacher misconceptions were noted in the presents study. As discussed in the section on reading instructional practices and basis of pedagogical decisions that follows, teachers: (a) underuse several research-based approaches; (b) identify certain effective practices as not relevant to their students, despite acknowledgement of student difficulty (e.g., phonics instruction not used despite teacher assertion that students cannot read well enough to garner basic information); and (c) teachers make erroneous

assertions concerning the reasons that they do not use certain strategies (e.g., inadequate materials to use graphic organizers, despite the limited resources needed for such an approach).

Consistent with the present study, other researchers have voiced that juvenile correctional teachers may not have the requisite content knowledge and information on research-based instructional strategies to effectively assist the high needs youth in juvenile correctional schools (Houchins, Puckett-Patterson, Crosby, Shippen, & Jolivet, 2009; Maccini, Gagnon, Mulcahy, & Leone, 2006). As such, providing teachers with sufficient professional development experiences is an important recommendation. It is unclear from the present study the extent to which juvenile correctional schools link to public school professional development. However, because 80% of these facilities are considered public, there exists a potential resource and connection for providing juvenile correctional school reading teachers with professional development opportunities that may be beyond what these relatively small schools could offer. Another approach recommended by researchers is to provide teachers with professional development using online certification programs (Gagnon, Houchins, & Murphy, in press). O'Rourke, Catrett, and Houchins (2008) also recommended that state administrators provide statewide training that specifically supports juvenile correctional teachers.

School and student characteristics

The small class size that is common in juvenile correctional schools is a positive attribute that should be an ongoing goal; particularly in light of the significant reading difficulties of many youth in juvenile correctional schools. The issue of student length of enrollment is less controllable. However, given that many students are enrolled for at least seven months, it is clear that their attendance is sufficient to have access to necessary remedial instruction in reading. Researchers (Allen-DeBoer, Malmgren, & Glass, 2006; Drakeford, 2002; Houchins, Jolivet, Krezmien, & Balto-dano, 2008; Malmgren & Leone, 2000; Simpson, Swanson, & Kunkel, 1992) have reported positive effects of reading interventions on student reading skills in relatively short periods of time. Reading remediation should include key instructional practices noted in the following section.

Reading instructional practices and basis of pedagogical decisions

Future research on reading instruction in juvenile corrections schools should build from suggestions made by Biancarosa and Snow (2006), as well as other research on effective instruction for struggling adolescent readers specifically. Moreover, future research is needed including direct observation of instruction, student and teacher interviews, and document (e.g., lesson plan) reviews that would serve to verify trends noted from the current teacher

reports and provide additional details to address curiosities raised by our findings. In addition, we need validation of effective approaches to teaching reading to youth with disabilities within the unique constraints and context of juvenile corrections. The alarmingly high percentage of youth with disabilities—particularly EBD—in juvenile correctional schools provides significant challenges and underscores the need for research specific to the needs of students with disabilities served in these settings. However, data from the present study allow us to make some recommendations on the basis of teacher reports of instruction.

Phonemic awareness and phonics. As described earlier, recent research has called for increased attention to the need for high quality instruction in basic reading skills for adolescents, particularly adolescents with disabilities and those served in juvenile correctional schools. Specifically, researchers have recommended interventions at both the word and text level (Deshler, 2010; Scammacca et al., 2007). In our study, even though teachers reported a high degree of concern with their students' basic reading skills, few teachers reported frequent use of systematic instruction at the word level. Additional research should be conducted to explore this seeming mismatch and future professional development should focus on increasing teacher understanding of the value of instruction focused on word level reading skills as well as their knowledge of specific phonics instructional strategies that have demonstrated efficacy with struggling adolescent readers.

Fluency. As with phonemic awareness and phonics, research also suggests utility of fluency interventions for adolescent readers, with evidence suggesting that such interventions have positive outcomes on overall reading ability. For example, in a study of middle school students with disabilities, researchers found a correlation of .91 between oral reading fluency and comprehension (Fuchs, Fuchs, Hosp, & Jenkins, 2001). Given this link, teachers in juvenile corrections should continue frequent use of guided repeated oral reading and other fluency building strategies in their classrooms. Since teachers are already focusing on increasing oral reading fluency, a beneficial next step would be to regularly collect and chart oral reading fluency data as a means of monitoring the progress of their students in reading.

Vocabulary. Although recent comprehensive reports, (e.g., Biancarosa & Snow, 2006; Kamil et al., 2008), provide multiple and varied recommendations for improving the reading skills of adolescents, providing explicit vocabulary instruction is one of the recommendations that is made consistently across reports. The fact that teachers in our study reported frequent use of instruction aimed at increasing student vocabulary is positive. Future research should examine the specific strategies in place in order to provide guidance

and increase the likelihood that teachers have knowledge and skills in those strategies that are most effective.

Comprehension. Teachers reported frequent use of effective strategies to promote student comprehension, such as use of explicit instruction, posing comprehension questions and providing feedback, and teaching students to understand and recognize text structures. An important next step will be to learn more about the specific ways in which teachers use these general strategies. For example, as noted earlier, teachers reported frequent use of questioning while their students were reading. Additional research is needed to increase understanding of how these strategies are being used and, because we know that the teachers who work in juvenile correctional schools are already fairly well educated and experienced, professional development should focus on more nuanced application of strategies and techniques to build comprehension skills of youth.

Instructional groupings. Teacher respondents indicated an overreliance on independent work, including silent reading, and infrequent use of peer-mediated instructional tasks. This pedagogical preference may be an artifact of the culture in juvenile corrections. It may be that improving instruction in these settings will require efforts that also address the overall teaching milieu, including the current emphasis on control of youth behavior wherein student conversation and collaboration are limited (Coffey & Gemignani, 1994; Gagnon & Richards, 2008; Rozalski & Engle, 2005).

Technology. Teachers reported little use of technology to teach reading. Primarily, teachers did not use technology because of the need for training and a lack of resources. The need for professional development is highlighted throughout this report. Specific to technology, inadequate and out-dated hardware and software are particular concerns (Coalition for Juvenile Justice, 2000). We recommend support of teachers in juvenile corrections via access to high quality hardware and software that would promote the integration of effective technology-based literacy interventions into their daily repertoire of instructional techniques. We also recommend that professional development emphasize the application of specific technology-rich reading instructional strategies and programs.

However, it is important to note that use of technology is a promising supplement or component of reading instruction and should never supplant teacher instruction. For example, the Peabody Literacy Lab (Hasselbring & Goin, 2004) is a technology-based intervention that has been linked to positive results for adolescents. The program combines comprehension instruction, word-level decoding instruction and opportunities to practice spelling. The program facilitates progress monitoring and makes adjustments to each student's instructional content on the basis of progress monitoring data. These elements are

integrated and made feasible as technology-based instruction. READ 180 is another multicomponent intervention with an integral technology-based component that provides for individualization. The What Works Clearinghouse describes READ 180 as having "potentially positive effects on comprehension and general literacy achievement for adolescent learners" (U.S. Department of Education, Institute of Education Sciences, 2009). Of particular import with Read 180, is that the use of technology is but one approach to promoting student reading. Large- and small-group activities, as well as independent reading are also key components of the program.

Conclusions

Eight million youth in Grades 4–12 struggle with reading in the U.S. (Grigg, Daane, Jin, & Campbell, 2003). The present study indicates an even more serious situation within juvenile corrections, with a disproportionate number of youth in corrections identified as having disabilities and 50% of teachers asserting that the majority of their students with LD or EBD could not read well enough to acquire basic information from text. Having access to well-educated and experienced teachers is a promising feature of the juvenile correctional schools reflected in this study. In addition, the fact that teachers reported high use of some effective practices (e.g., teaching students to understand and recognize text structures, use of vocabulary instruction, providing direct and explicit comprehension instruction) is heartening. However, teachers reported rarely using several research-based and promising practices, including word-level instructional strategies, graphic organizers, and technology. We hope that this first national study provides the groundwork necessary to address concerns with low levels of student reading and the need for research-based and promising instructional approaches in juvenile corrections.

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