

Equitable Literacy for All Students

Resolution Approved.

THIS PAGE LEFT INTENTIONALLY BLANK

Equitable Literacy for All Students

Table of Contents

Contents		Page
Cover Sheet		1-3
Table of Contents		4-5
Resolution		6-7
Background		8
Bibliography		9-11
Reference Sheet	Whereas 1	12
	Whereas 2	13
	Whereas 3	14
	Whereas 4	15
	Whereas 5	16
	Whereas 6	17
	Whereas 7	18
	Whereas 8	19
Resources	Resource #1	20-21
	Resource #2	22
	Resource #3	23-24
	Resource #4	25-26
	Resource #5	27-37
	Resource #6	38-41
	Resource #7	42-52
	Resource #8	53-54
	Resource #9	55-57
	Resource #10	58-61
	Resource #11	62-64
	Resource #12	65-70
	Resource #13	71
	Resource #14	72
	Resource #15	73-79
	Resource #16	80-87
	Resource #17	88-96
	Resource #18	97-98

	Resource #19	99
	Resource #20	100
	Resource #21	101

Equitable Literacy for All Students - Preamble (Whereas)

- 1 - WHEREAS, The 2022 results from the National Assessment of Educational Progress (NAEP) revealed that only 31% of California 4th graders performed at or above the *NAEP Proficient* level and 42% performed below *NAEP Basic* level of reading proficiency; and
- 2- WHEREAS, It has been demonstrated that by the end of first grade, 95% of students can learn to read if taught using comprehensive, evidence-based, structured literacy curricula that include, but is not limited to these essential components of learning to read: Phonemic Awareness, Phonics, Reading Fluency, Vocabulary, Text Comprehension, Knowledge Building, Oral Language teaching methods; and
- 3 - WHEREAS, As reported by Yale University, an achievement gap exists as early as 1st grade between dyslexic and typical readers, but that achievement gap can potentially be narrowed with early reading interventions with evidence-based, structured literacy instruction. Further, 3 out of 4 students who do not read well in third grade remain poor readers in high school and beyond; and
- 4 - WHEREAS, Evidence-based research shows students who experience reading failure face social, emotional, and mental health challenges, including but not limited to severe anxiety, depression, and trauma, at a rate 2 to 5 times greater than their peers; and
- 5 - WHEREAS, A large percentage of youth involved in the justice system have low academic reading achievement. Higher levels of literacy are associated with greater success at achieving employment on release, and lower rates of re-arrest, and recidivism; and
- 6 - WHEREAS, There is substantial evidence that illiteracy, including that from dyslexia, results in significant social and economic costs; and
- 7 - WHEREAS, Senate Bill 488 (Rubio, 2022) requires all accredited teacher preparation programs to meet the reading instruction competence assessment standards that align with evidence-based preparation programs, and requires the Commission on Teacher Credentialing (CTC) to revise and strengthen standards for teacher licensure that incorporate both evidence-based structured literacy and the California Dyslexia guidelines; and
- 8 - WHEREAS, The implementation of SB 488 (Rubio 2022), which calls for strengthening of teacher preparation programs and state licensure requirements aligned with evidence-based structural literacy, is vital for the equitable literacy of all students.

Equitable Literacy for All Students - Request for Action (Resolved)

- 1- RESOLVED, That the California State PTA and its units, councils, and districts advocate for legislation and public policies that require public schools to conduct K-4th grade universal screenings for all children at entering and exiting each grade level, to identify those at risk of reading and literacy disorders; and screen for reading proficiency; and be it further
- 2 - RESOLVED, That the California State PTA and its units, councils, and districts advocate for legislation and public policies that ensure children who are not reading proficiently upon entering or exiting grade levels K-4 are provided additional support and instruction to ensure their rights to equal access to all aspects of their education; and be it further
- 3 - RESOLVED, That the California State PTA and its units, councils, and districts advocate for legislation and public policies to ensure that if the majority of children in a K-4th grade classroom are not reading at grade level proficiency as defined by state standards, the whole school or district needs to make changes to its literacy program to ensure it meets the needs of students through evidence-based, structured literacy instruction,; and be it further
- 4 - RESOLVED, That the California State PTA and its units, councils, and districts work with schools, school districts, and families to educate them regarding evidence-based, structured literacy instruction, and be it further
- 5 - RESOLVED, That the California State PTA and its units, councils, and districts advocate for legislation and public policies that ensure all students are taught reading based on comprehensive, evidence-based, structured literacy curricula; and be it further
- 6- RESOLVED, That the California State PTA, its units, councils, and districts support the establishment of a taskforce of experts in the field of evidence-based structured literacy to ensure creation and implementation of a statewide comprehensive literacy plan that includes, but is not limited to teacher preparation, coaching, and professional development requirements.

Background Summary

In 2020, Randi Weingarten, president of the American Federation of Teachers (AFT), the second largest teacher's labor union in the U.S., wrote in her foreword to a report authored by Louisa C. Moats:

“Reading is not simply a desire; it is a fundamental skill necessary for virtually everything we do. And we need to ensure all of us, particularly our children, learn to read and read to learn so they too can do everything.”¹

This PTA resolution, brought on behalf of all of California's students is summarized well throughout this mentioned report authored by Dr. Moats¹, who is a respected teacher, psychologist, researcher, and professor who has been at the forefront of the research related to reading instruction for five decades.

“This report is an update to the original *Teaching Reading Is Rocket Science* published by the American Federation of Teachers over 20 years ago² and emerges from a collaboration between the AFT and the Center for Development and Learning. Together they acknowledge that, although some progress has been made in teaching reading effectively, too few at-risk, disadvantaged, and minority students become proficient readers. Insufficient emphasis has been placed on understanding the science of reading, which, when appropriately implemented, can enable these students to make significant reading and writing gains.” (pg. 4)

The National Assessment of Educational Progress (NAEP), a congressionally mandated program, provides important information about student achievement across our nation and has provided meaningful results to improve education policy and practice since 1969.³

California's 2022 NAEP score shows only 31% of California 4th graders perform at or above the proficient level in reading.⁴ Poor reading instruction by California's education system continues to perpetuate inequalities that have had a greater impact on at-risk, disadvantaged, and minority students. Of concern, studies show when the literacy gaps widen, also known as the Matthew effect⁵, the inequalities become exponentially greater, as each year passes. Importantly, Dr. Moats indicates:

“Persistent “gaps” between more advantaged and less advantaged students can be narrowed and even closed. Fundamentally, these gaps are the result of differences in students' opportunities to learn—not their learning abilities.”¹

NAEP allows us to compare states, including Mississippi, which passed statewide legislation in 2013 which implemented early screening, teacher training, and evidence-based reading curricula. The data show nationwide ranking of 4th-grade reading achievement, Mississippi's legislative action has proven successful:

2013 - Mississippi below 49th
2017 - Mississippi just below 44th
2019 - Mississippi just below 29th
2022 - Mississippi tied at 21st

To quote State Superintendent of Public Instruction Tony Thurmond who spoke at the 2022 California Reading Summit, “If evidence-based programs are not mandated the school districts will not do it.” This is a social justice issue and is a matter of equity. It is vital that as an organization, PTA supports this resolution to ensure all students have equitable access to literacy.

¹ <https://www.aft.org/ae/summer2020/moats#A1>

² <https://files.eric.ed.gov/fulltext/ED445323.pdf>

³ <https://nces.ed.gov/nationsreportcard/about/>

⁴ <https://nces.ed.gov/nationsreportcard/subject/publications/stt2022/pdf/2023010CA4.pdf>

⁵ <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC4500191/pdf/nihms678476.pdf>

Bibliography

1. National Center for Educational Statistics, National Assessment of Educational Progress (2022). *The Nation's Report Card: 2022 Reading Snapshot Report: California Grade 4*. Page 1.
Retrieved from:
<https://nces.ed.gov/nationsreportcard/subject/publications/stt2022/pdf/202301OCA4.pdf>
2. National Center for Educational Statistics, National Assessment of Educational Progress (2022). *NAEP Technical Documentation Achievement Levels*. Page 1.
Retrieved from:
https://nces.ed.gov/nationsreportcard/tdw/analysis/describing_achiev.asp
3. Lyon, G. Reid, Ph.D (2003) *Reading Disabilities: Why Do Some Children Have Difficulty Learning to Read? What Can Be Done About It?* Page 2, 3.
Retrieved from: <https://www.wrightslaw.com/info/read.disability.lyon.pdf>
4. International Dyslexia Association (2018) Reading Rockets. *Structured Literacy Instruction: The Basics*. Page 1, 2.
Retrieved from:
<https://www.readingrockets.org/article/structured-literacy-instruction-basics>
5. District Leadership Forum (2019) *Narrowing the Third Grade Reading Gap*. Page 7, 8, 9, 18, 20, 24, 31, 34, 35, 38, 39.
Retrieved from:
https://www.idaontario.com/wp-content/uploads/2019/10/EAB-2019-Narrowing-the-Third-Grade-Reading-Gap_research-briefing.pdf
6. Boston Consulting Group; UCSF Dyslexia Center (2020) *The Economic Impact of Dyslexia on California*. Page 1, 2, 3, 4, 24, 25.
Retrieved from:
<https://media-publications.bcg.com/The-Economic-Impact-of-Dyslexia-on-California-Whitepaper-Final.pdf>
7. The Annie E. Casey Foundation Kids Count Data Center. (2010). *Early Warning! Why Reading by the End of Third Grade Matters*. Page 5, 6, 7, 10, 11, 15, 16, 17, 19, 24, 43, 44.
Retrieved from:
https://assets.aecf.org/m/resourcedoc/AECF-Early_Warning_Full_Report-2010.pdf
8. The Journal of Pediatrics (2015) *Achievement Gap in Reading is Present as Early as First Grade and Persists through Adolescence*. Page 1121, 1124.
Retrieved from: [https://www.jpeds.com/article/S0022-3476\(15\)00823-9/fulltext](https://www.jpeds.com/article/S0022-3476(15)00823-9/fulltext)
9. EdSource Special Report (2022) *How Badly did the Pandemic Deepen California's Early Reading Crisis?* Page 1, 2, 3, 5, 7. Retrieved from:
<https://edsources.org/2022/how-badly-did-the-pandemic-deepen-californias-early-reading>

10. Morgan, Paul L., Farkas, George and Wu, Quiong (2011) *Do Poor Readers Feel Angry, Sad and Unpopular?* Page 1, 2, 3, 20, 23. Retrieved from:
<https://www.ncbi.nlm.nih.gov/pmc/articles/PMC4500191/>
11. O’Cummings, Mindee, Bardack, Sarah, Gonsoulin, Simon (2010) *The Importance of Literacy for Youth Involved in the Juvenile Justice System.* Page 1, 2, 3.
Retrieved from: <https://files.eric.ed.gov/fulltext/ED594436.pdf>
12. Clark, Alyssa, Haderlie, Chloe (2017) *Illiteracy Among US Adults.* Ballard Brief. Page 1, 2, 3, 4, 6, 7, 8.
Retrieved from:
<https://ballardbrief.byu.edu/issue-briefs/illiteracy-among-adults-in-the-us>
13. California Senate Bill 488 *Requires All Accredited Teacher Preparation Programs to Meet the Reading Instruction Competence Assessment Standards that Align with Evidence-Based, Preparation Programs* (2021)
Retrieved from:
https://leginfo.legislature.ca.gov/faces/billTextClient.xhtml?bill_id=202120220SB488
14. California Senate Bill 488 passes; California Education Code 44252.6 is amended (2021)
Retrieved from:
https://leginfo.legislature.ca.gov/faces/billCompareClient.xhtml?bill_id=202120220SB488&showamends=false
15. *While White Students Get Specialists, Struggling Black And Latino Readers Often Get Left On Their Own* (2022) Page 3, 4, 5, 6, 7, 10, 12
Retrieved from:
<https://hechingerreport.org/while-white-students-get-specialists-struggling-black-and-latino-readers-often-left-on-their-own/>
16. Vaughn, Fletcher (2021) *Identifying and Teaching Students with Significant Reading Problems.* Page 3, 4, 8, 9, 10, 11, 12, 13, 14.
Retrieved from: https://www.aft.org/ae/winter2020-2021/vaughn_fletcher
17. Moats (2020) *Teaching Reading Is Rocket Science.* Page 3, 4, 5, 6, 7, 8, 9, 10.
Retrieved from: <https://www.aft.org/ae/summer2020/moats>
18. (2019) *Education for Youth Under Formal Supervision of the Juvenile Justice System.* OJJDP. Page 1, 2.
Retrieved from:

https://ojjdp.ojp.gov/model-programs-guide/literature-reviews/education_for_youth_under_formal_supervision_of_the_juvenile_justice_system.pdf

19. (2020) *Meeting the Needs of the Students in Juvenile Justice Facilities (2nd ed.)* NDTAC. Page 3.
Retrieved from:
<https://neglected-delinquent.ed.gov/sites/default/files/Adolescent-LitGuide-508.pdf>

20. (2015) *Academic Achievement Among Juvenile Detainees* Dept. of Health/Human Services. Page 1, 9.
Retrieved from:
<https://www.ncbi.nlm.nih.gov/pmc/articles/PMC5064284/pdf/nihms-821513.pdf>

21. (2015) *Achievement Gap in Reading Is Present as Early as First Grade and Persists through Adolescence*. Page 1.
Retrieved from:
<https://www.dyslexia.yale.edu/research-science/achievement-gap-in-reading-is-present-as-early-as-first-grade-and-persists-through-adolescence/>

Resources by Whereas

Complete folder (contains copyright material)

1 WHEREAS,

The 2022 results from the National Assessment of Educational Progress (NAEP) revealed that only 31% of California 4th graders performed at or above the NAEP Proficient level and 42% performed below NAEP Basic level of reading proficiency.

1. National Center for Educational Statistics, National Assessment of Educational Progress (2022). *The Nation's Report Card: 2022 Reading Snapshot Report: California Grade 4*.

Retrieved from:

<https://nces.ed.gov/nationsreportcard/subject/publications/stt2022/pdf/2023010CA4.pdf>

PAGES 16-17

2. National Center for Educational Statistics, National Assessment of Educational Progress (2022). *NAEP Technical Documentation Achievement Levels*. Retrieved from:

https://nces.ed.gov/nationsreportcard/tdw/analysis/describing_achiev.asp

PAGE 18

15. While White Students Get Specialists, Struggling Black And Latino Readers Often Get Left On Their Own (2022) Retrieved from:

<https://hechingerreport.org/while-white-students-get-specialists-struggling-black-and-latino-readers-often-left-on-their-own/> **PAGES 69-75**

17. Moats (2020) *Teaching Reading Is Rocket Science*. Retrieved from:

<https://www.aft.org/ae/summer2020/moats> **PAGE 84**

2 WHEREAS,

It has been demonstrated that by the end of first grade, 95% of students can learn to read if taught using comprehensive, evidence-based, structured literacy curricula that include, but is not limited to these essential components of learning to read: Phonemic Awareness, Phonics, Reading Fluency, Vocabulary, Text Comprehension, Knowledge Building, Oral Language teaching methods.

5. District Leadership Forum (2019) *Narrowing the Third Grade Reading Gap*. Retrieved from: https://www.idaontario.com/wp-content/uploads/2019/10/EAB-2019-Narrowing-the-Third-Grade-Reading-Gap_research-briefing.pdf **PAGES 22-28**

17. Moats (2020) *Teaching Reading Is Rocket Science*. Retrieved from: <https://www.aft.org/ae/summer2020/moats> **PAGE 85**

3. Lyon, G. Reid, Ph.D (2003) *Reading Disabilities: Why Do Some Children Have Difficulty Learning to Read? What Can Be Done About It?*
Retrieved from: https://www.wrightslaw.com/info/read_disability.lyon.pdf
PAGES 19-20

9. EdSource Special Report (2022) *How Badly did the Pandemic Deepen California's Early Reading Crisis?* Retrieved from: <https://edsources.org/2022/how-badly-did-the-pandemic-deepen-californias-early-reading-crisis/680490#:~:text=Only%2042.1%25%20of%20third%2Dgraders,2019%20to%2030%25%20in%202022.> **PAGE 51**

4. International Dyslexia Association (2018) Reading Rockets. *Structured Literacy Instruction: The Basics*. Retrieved from: <https://www.readingrockets.org/article/structured-literacy-instruction-basics>
PAGE 21

3 WHEREAS,

As reported by Yale University, an achievement gap exists as early as 1st grade between dyslexic and typical readers, but that achievement gap can potentially be narrowed with early reading interventions with evidence-based, structured literacy instruction. Further, 3 out of 4 students who do not read well in third grade remain poor readers in high school and beyond.

21. (2015) Achievement Gap in Reading Is Present as Early as First Grade and Persists through Adolescence. Retrieved from:

<https://www.dyslexia.yale.edu/research-science/achievement-gap-in-reading-is-present-as-early-as-first-grade-and-persists-through-adolescence/> **PAGE 97**

8. The Journal of Pediatrics (2015) *Achievement Gap in Reading is Present as Early as First Grade and Persists through Adolescence*. Retrieved from:

[https://www.jpeds.com/article/S0022-3476\(15\)00823-9/fulltext](https://www.jpeds.com/article/S0022-3476(15)00823-9/fulltext)

PAGES 49-50

5. District Leadership Forum (2019) *Narrowing the Third Grade Reading Gap*. Retrieved from:

https://www.idaontario.com/wp-content/uploads/2019/10/EAB-2019-Narrowing-the-Third-Grade-Reading-Gap_research-briefing.pdf **PAGE 27**

7. The Annie E. Casey Foundation Kids Count Data Center. (2010). *Early Warning! Why Reading by the End of Third Grade Matters*. Retrieved from:

https://assets.aecf.org/m/resourcedoc/AECF-Early_Warning_Full_Report-2010.pdf

PAGE 42

4 WHEREAS, Evidence-based research shows students who experience reading failure face social, emotional, and mental health challenges, including but not limited to severe anxiety, depression, and trauma, at a rate 2 to 5 times greater than their peers.

10. Morgan, Paul L. Farkas, George and Wu, Quiong (2011) *Do Poor Readers Feel Angry, Sad and Unpopular?* Retrieved from: <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC4500191/>
PAGES 54-57

7. The Annie E. Casey Foundation Kids Count Data Center. (2010). *Early Warning! Why Reading by the End of Third Grade Matters.* Retrieved from:
https://assets.aecf.org/m/resourcedoc/AECF-Early_Warning_Full_Report-2010.pdf
PAGES 43-45

12. Clark, Alyssa, Haderlie, Chloe (2017) *Illiteracy Among US Adults.* Ballard Brief. Retrieved from: <https://ballardbrief.byu.edu/issue-briefs/illiteracy-among-adults-in-the-us>
PAGE 62

5 WHEREAS, A large percentage of youth involved in the justice system have low academic reading achievement. Higher levels of literacy are associated with greater success at achieving employment on release, and lower rates of re-arrest, and recidivism.

11. O’Cummings, Mindee, Bardack, Sarah, Gonsoulin, Simon (2010) *The Importance of Literacy for Youth Involved in the Juvenile Justice System*. Retrieved from: <https://files.eric.ed.gov/fulltext/ED594436.pdf>. **PAGES 58-60**

12. Clark, Alyssa, Haderlie, Chloe (2017) *Illiteracy Among US Adults*. Ballard Brief. Retrieved from: <https://ballardbrief.byu.edu/issue-briefs/illiteracy-among-adults-in-the-us> **PAGES 61-66**

7. The Annie E. Casey Foundation Kids Count Data Center. (2010). *Early Warning! Why Reading by the End of Third Grade Matters*. Retrieved from: https://assets.aecf.org/m/resourcedoc/AECF-Early_Warning_Full_Report-2010.pdf **PAGE 41**

18. (2019) Education for Youth Under Formal Supervision of the Juvenile Justice System. OJJDP Retrieved from: https://ojjdp.ojp.gov/model-programs-guide/literature-reviews/education_for_youth_under_formal_supervision_of_the_juvenile_justice_system.pdf **PAGES 93-94**

19. (2020) *Meeting the Needs of the Students in Juvenile Justice Facilities (2nd ed.)* NDTAC Retrieved from: <https://neglected-delinquent.ed.gov/sites/default/files/Adolescent-LitGuide-508.pdf> **PAGE 95**

20. (2015) *Academic Achievement Among Juvenile Detainees* Dept. of Health/Human Services Retrieved from: <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC5064284/pdf/nihms-821513.pdf> **PAGE 96**

6 WHEREAS, There is substantial evidence that illiteracy, including that from dyslexia, results in significant social and economic costs.

6. Boston Consulting Group; UCSF Dyslexia Center (2020) *The Economic Impact of Dyslexia on California*. Retrieved from:
<https://media-publications.bcg.com/The-Economic-Impact-of-Dyslexia-on-California-Whitepaper-Final.pdf> **PAGES 34-35**

7. The Annie E. Casey Foundation Kids Count Data Center. (2010). *Early Warning! Why Reading by the End of Third Grade Matters*. Retrieved from:
https://assets.aecf.org/m/resourcedoc/AECF-Early_Warning_Full_Report-2010.pdf
PAGE 38

12. Clark, Alyssa, Haderlie, Chloe (2017) *Illiteracy Among US Adults*. Ballard Brief. Retrieved from: <https://ballardbrief.byu.edu/issue-briefs/illiteracy-among-adults-in-the-us>
PAGES 62, 65

7 WHEREAS, Senate Bill 488 (Rubio, 2022) requires all accredited teacher preparation programs to meet the reading instruction competence assessment standards that align with evidence-based preparation programs, and requires the Commission on Teacher Credentialing (CTC) to revise and strengthen standards for teacher licensure that incorporate both evidence-based structured literacy and the California Dyslexia guidelines.

13. California Senate Bill 488 *Requires All Accredited Teacher Preparation Programs to Meet the Reading Instruction Competence Assessment Standards that Align with Evidence-Based, Preparation Programs* Retrieved from:

https://leginfo.legislature.ca.gov/faces/billTextClient.xhtml?bill_id=202120220SB488

PAGE 67

6. Boston Consulting Group; UCSF Dyslexia Center (2020) *The Economic Impact of Dyslexia on California*. Retrieved from:

<https://media-publications.bcg.com/The-Economic-Impact-of-Dyslexia-on-California-Whitepaper-Final.pdf> **PAGE 36-37**

16. Vaughn, Fletcher (2021) Identifying and Teaching Students with Significant Reading Problems. Retrieved from: https://www.aft.org/ae/winter2020-2021/vaughn_fletcher.

PAGES 76-83

17. Moats (2020) *Teaching Reading Is Rocket Science*. Retrieved from:

<https://www.aft.org/ae/summer2020/moats>. **PAGES 86-91**

5. District Leadership Forum (2019) *Narrowing the Third Grade Reading Gap*. Retrieved from:

https://www.idaontario.com/wp-content/uploads/2019/10/EAB-2019-Narrowing-the-Third-Grade-Reading-Gap_research-briefing.pdf **PAGES 29-31**

8 WHEREAS, The implementation of SB 488 (Rubio 2022), which calls for strengthening of teacher preparation programs and state licensure requirements aligned with evidence-based structural literacy, is vital for the equitable literacy of all students.

14. California Senate Bill 488 passes; California Education Code 44252.6 is amended

Retrieved from:

https://leginfo.legislature.ca.gov/faces/billCompareClient.xhtml?bill_id=202120220SB488&showamends=false

PAGE 68

13. California Senate Bill 488 *Requires All Accredited Teacher Preparation Programs to Meet the Reading Instruction Competence Assessment Standards that Align with Evidence-Based, Preparation Programs* Retrieved from:

https://leginfo.legislature.ca.gov/faces/billTextClient.xhtml?bill_id=202120220SB488

PAGE 67

6. Boston Consulting Group; UCSF Dyslexia Center (2020) *The Economic Impact of Dyslexia on California*. Retrieved from:

<https://media-publications.bcg.com/The-Economic-Impact-of-Dyslexia-on-California-Whitepaper-Final.pdf>. **PAGES 36-37**

17. Moats (2020) *Teaching Reading Is Rocket Science*. Retrieved from:

<https://www.aft.org/ae/summer2020/moats>. **PAGES 86-87, 89-92**

5. District Leadership Forum (2019) *Narrowing the Third Grade Reading Gap*. Retrieved from:

https://www.idaontario.com/wp-content/uploads/2019/10/EAB-2019-Narrowing-the-Third-Grade-Reading-Gap_research-briefing.pdf **PAGES 29-31**

Resource Reference Sheets

Resource #1

WHEREAS #1



OVERALL RESULTS

- In 2022, the average score of fourth-grade students in California was 214. This was not significantly different from the average score of 216 for students in the nation.
- The average score for students in California in 2022 (214) was not significantly different from their average score in 2019 (216) and was higher than their average score in 1998 (202).
- The percentage of students in California who performed at or above the *NAEP Proficient* level was 31 percent in 2022. This percentage was not significantly different from that in 2019 (32 percent) and was greater than that in 1998 (20 percent).
- The percentage of students in California who performed at or above the *NAEP Basic* level was 58 percent in 2022. This percentage was not significantly different from that in 2019 (63 percent) and was greater than that in 1998 (48 percent).

RESULTS FOR STUDENT GROUPS IN 2022

REPORTING GROUPS	PERCENTAGE OF STUDENTS	AVG. SCORE	PERCENTAGE AT OR ABOVE NAEP		PERCENTAGE AT NAEP ADVANCED
			BASIC	PROFICIENT	
Race/Ethnicity					
White	22	231	75	48	15
Black	5	194	38	12	1
Hispanic	55	202	46	18	3
Asian	12	244	85	62	27
American Indian/Alaska Native	#	†	†	†	†
Native Hawaiian/Pacific Islander	1	†	†	†	†
Two or More Races	5	231	77	47	14
Gender					
Male	50	211	56	30	9
Female	50	218	61	32	9
National School Lunch Program					
Eligible	60	201	46	18	3
Not eligible	37	235	78	52	18

Rounds to zero.
† Reporting standards not met.

NOTE: Detail may not sum to totals because of rounding, and because the "Information not available" category for the National School Lunch Program, which provides free/reduced-price lunches, is not displayed. Black includes African American and Hispanic includes Latino. Race categories exclude Hispanic origin.

SCORE GAPS FOR STUDENT GROUPS

- In 2022, Black students had an average score that was 37 points lower than that for White students. This performance gap was not significantly different from that in 1998 (31 points).
- In 2022, Hispanic students had an average score that was 29 points lower than that for White students. This performance gap was not significantly different from that in 1998 (35 points).
- In 2022, male students in California had an average score that was lower than that for female students by 6 points.
- In 2022, students who were eligible for the National School Lunch Program (NSLP) had an average score that was 34 points lower than that for students who were not eligible. This performance gap was not significantly different from that in 1998 (38 points).



NOTE: The NAEP reading scale ranges from 0 to 500. Results presented in this report are based on public school students only. Statistical comparisons are calculated on the basis of unrounded scale scores or percentages. Score gap results for "White," "Black," and "Hispanic" presented in this report are based on the 6-category race/ethnicity variable with data available starting in early 1990s. Read more about how to interpret NAEP results from the reading assessment at [interpret results](#). For more information and additional comparisons please visit the [Nation's Report Card](#) and [NAEP Data Explorer](#).
SOURCE: U.S. Department of Education, Institute of Education Sciences, National Center for Education Statistics, National Assessment of Educational Progress (NAEP), 1998–2022 Reading Assessments.

WHEREAS #1

National Center for Educational Statistics, National Assessment of Educational Progress (2022).

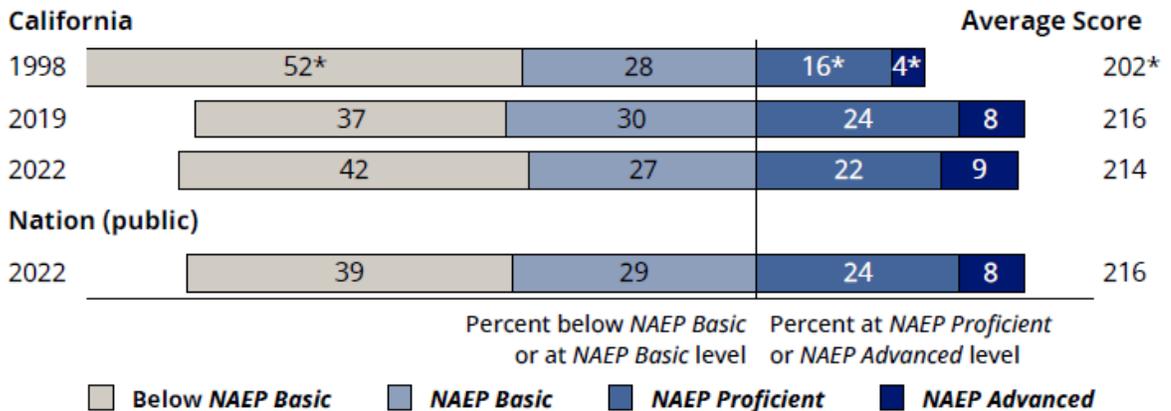
The Nation's Report Card: 2022 Reading Snapshot Report: California Grade 4.

Retrieved from:

<https://nces.ed.gov/nationsreportcard/subject/publications/stt2022/pdf/2023010CA4.pdf>

2022 READING STATE SNAPSHOT REPORT CALIFORNIA ■ GRADE 4 ■ PUBLIC SCHOOLS

NAEP ACHIEVEMENT-LEVEL PERCENTAGES AND AVERAGE SCORE RESULTS



* Significantly different ($p < .05$) from the state's results in 2022. Significance tests were performed using unrounded numbers.

NOTE: NAEP achievement levels are to be used on a trial basis and should be interpreted and used with caution. Detail may not sum to totals because of rounding.

WHEREAS #1

National Center for Educational Statistics, National Assessment of Educational Progress (2022). *The Nation's Report Card: 2022 Reading Snapshot Report: California Grade 4*.

Retrieved from:

<https://nces.ed.gov/nationsreportcard/subject/publications/stt2022/pdf/2023010CA4.pdf>

NAEP Technical Documentation Website

NAEP Technical Documentation Achievement Levels

Similar to the 1988 legislation that created the [National Assessment Governing Board](#), the more recent NAEP Authorization Act of 2002 reauthorized the Board to continue its work, setting “appropriate student achievement levels for each grade... for each subject area” that NAEP measures [P.L. 107-279, Title III, Section 303(e)]. This legislation, the [No Child Left Behind Act](#), also known as the National Assessment of Educational Progress Authorization Act, reaffirmed many of the the Board’s statutory responsibilities, including developing achievement levels that are consistent with relevant, widely accepted professional assessment standards and based on the appropriate level of subject matter knowledge for grade levels to be assessed. Legislation also specified that the levels “shall be used on a trial basis . . . and updated as appropriate.”

To follow this directive, the Board undertook the development of student performance standards, called achievement levels. Achievement levels are the primary way of reporting NAEP results, and identify what students know and should be able to do at various points on the NAEP scale.

The Board defined three achievement levels for each grade:

- *NAEP Basic* denotes partial mastery of the knowledge and skills that are fundamental for proficient work at a given grade.
- *NAEP Proficient* represents solid academic performance for the given grade level and competency over challenging subject matter including subject-matter knowledge, application of such knowledge to real world situations, and analytical skills appropriate to the subject matter.
- *NAEP Advanced* presumes mastery of both the *NAEP Basic* and *NAEP Proficient* levels and represents superior academic performance.

[Civics Achievement Levels](#)

[Economics Achievement Levels](#)

[Geography Achievement Levels](#)

[Mathematics Achievement Levels](#)

[Reading Achievement Levels](#)

[Science Achievement Levels](#)

[Technology and Engineering Literacy Achievement Levels](#)

[U.S. History Achievement Levels](#)

[Writing Achievement Levels](#)

WHEREAS #1

National Center for Educational Statistics, National Assessment of Educational Progress (2022). *NAEP Technical Documentation Achievement Levels*. Retrieved from: https://nces.ed.gov/nationsreportcard/tdw/analysis/describing_achiev.asp

How Reading Develops, and Why So Many of Our Children Have Difficulty Learning to Read

Converging scientific evidence from studies supported by NICHD indicates that learning to read is a relatively lengthy process that begins before children enter formal schooling. Children who receive stimulating oral language and literacy experiences from birth onward appear to have an edge when it comes to vocabulary development, developing a general awareness of print and literacy concepts, understanding and the goals of reading. If young children are read to, they become exposed, in interesting and entertaining ways, to the sounds of our language. Oral language and literacy interactions open the doors to the concepts of rhyming and alliteration, and to word and language play that builds the foundation for phonemic awareness – the critical understanding that the syllables and words that are spoken are made up of small segments of sound (phonemes). Vocabulary and oral comprehension abilities are facilitated substantially by rich oral language interactions with adults that might occur spontaneously in conversations and in shared picture book reading.

WHEREAS #2

However, the experiences that help develop vocabulary and general language and conceptual skills in preschoolers are different from the experiences that develop specific types of knowledge necessary to read, including knowledge about print, phonemic awareness, and spelling. These skills need to be systematically and, depending upon the level of the child's background knowledge, explicitly taught. Preschool children who can recognize and discriminate letters of the alphabet are typically from homes in which materials such as magnetized letters and alphabet name books are present and are the source of teaching interactions with parents. Clearly, these children will have less to learn when they enter kindergarten. The learning of letter names is also important because the names of many letters contain the sounds they most often represent. With this knowledge, the child is oriented to what is termed "the alphabetic principle" – a principle that explains how sounds of speech (phonemes) become associated with letters of the alphabet (phonics). This principle stands at the core of learning and applying phonics skills to print.

Ultimately, children's ability to comprehend what they listen to and what they read is inextricably linked to the depth of their background knowledge. Very young children who are provided opportunities to learn, think, and talk about new areas of knowledge will gain much more from the reading process. With understanding comes the desire to read more. Thus, ensuring that reading practice and the development of new vocabulary takes place. Through these early interactions and the systematic exposure to language and literacy concepts provided by parents, caregivers, and teachers, skilled readers learn to apply phonemic and phonics skills rapidly and accurately. Children that practice reading develop fluency, automaticity, and the ability to read with expression, and to apply comprehension strategies to what they are reading to facilitate understanding. It all starts very early, with those initial language and literacy interactions that expose the child to the structure of our language and how print works.

PAGE 2 (WHEREAS #2)

Lyon, G. Reid, Ph.D (2003) *Reading Disabilities: Why Do Some Children Have Difficulty Learning to Read? What Can Be Done About It?* Retrieved from:

<https://www.wrightslaw.com/info/read.disability.lyon.pdf>

Can Children with Reading Problems Overcome Their Difficulties?

Yes, the majority of children who enter kindergarten and elementary school at-risk for reading failure can learn to read at average or above levels, but only if they are identified early and provided with systematic, explicit, and intensive instruction in phonemic awareness, phonics, reading fluency, vocabulary, and reading comprehension strategies. Substantial research supported by NICHD shows clearly that without systematic, focused, and intensive interventions, the majority of children rarely "catch up." Failure to develop basic reading skills by age nine predicts a lifetime of illiteracy. Unless these children receive the appropriate instruction, more than 74% of the children entering first grade who are at-risk for reading failure will continue to have reading problems into adulthood. On the other hand, the early identification of children at-risk for reading failure coupled with the provision of comprehensive early reading interventions can reduce the percentage of children reading below the basic level in the fourth grade (i.e., 38%) to six percent or less.

WHEREAS #2

Are Certain Reading Instructional Approaches More Effective Than Others?

Yes. On the basis of a thorough evidence-based review of the reading research that met rigorous scientific standards, the National Reading Panel (NRP), convened by the NICHD and the Department of Education, found that instructional programs that provided systematic instruction in phonemic awareness, phonics, guided repeated reading to improve reading fluency, and direct instruction in vocabulary and reading comprehension strategies were significantly more effective than approaches that were less explicit and less focused on the reading skills to be taught (e.g., approaches that emphasize incidental learning of basic reading skills). The NRP found that children as young as four years of age benefited from instruction in phonemic awareness and the alphabetic principle when the instruction was presented in an interesting and entertaining, albeit systematic manner. Likewise, the National Center for Educational Statistics recently reported data from its Early Childhood Longitudinal Study involving 22,000 children showing that, after controlling for family income, youngsters who attended more academically oriented preschool programs had significantly higher scores in reading, math, and general knowledge when tested in the fall of their kindergarten year than children attending less academically oriented preschools. Five NICHD longitudinal early intervention studies have examined the effectiveness of different early intervention approaches provided in kindergarten and first and second grades for those children most at-risk for reading difficulties. These studies strongly suggest that such programs if implemented appropriately, could reduce the number of children who fail to learn to read well below the 38 % rate currently observed nationally. It is also important to note that the majority of children composing this unacceptably large group of poor readers ARE NOT provided special education services, as is discussed next.

PAGE 3 (WHEREAS #2)

Lyon, G. Reid, Ph.D (2003) *Reading Disabilities: Why Do Some Children Have Difficulty Learning to Read? What Can Be Done About It?* Retrieved from:
<https://www.wrightslaw.com/info/read.disability.lyon.pdf>

Resource #4

Structured Literacy prepares students to decode words in an explicit and systematic manner. This approach not only helps students with dyslexia, but there is substantial evidence that it is effective for *all* readers. Get the basics on the six elements of Structured Literacy and how each element is taught.

WHEREAS #2

Related Content

[Structured Literacy: An Introductory Guide \(IDA\)](#)
[Structured Literacy and Typical Literacy Practices: Understanding Differences to Create Instructional Opportunities](#)

The most difficult problem for students with dyslexia is learning to read. Unfortunately, popularly employed reading approaches, such as Guided Reading or Balanced Literacy, are not effective for struggling readers. These approaches are especially ineffective for students with dyslexia because they do not focus on the decoding skills these students need to succeed in reading.

What does work is Structured Literacy, which prepares students to decode words in an explicit and systematic manner. This approach not only helps students with dyslexia, but there is substantial evidence that it is more effective for *all* readers.

The elements of Structured Literacy instruction

Phonology. Phonology is the study of sound structure of spoken words and is a critical element of Structured Language instruction. Phonological awareness includes rhyming, counting words in spoken sentence, and clapping syllables in spoken words. An important aspect of phonological awareness is phonemic awareness or the ability to segment words into their component sounds, which are called phonemes. A phoneme is the

PAGE 1 (WHEREAS #2)

smallest unit of sound in a given language that can be recognized as being distinct from other sounds in the language. For example, the word *cap* has three phonemes (/k/, /ă/, /p/), and the word *clasp* has five phonemes (/k/, /l/, /ă/, /s/, /p/).

Sound-Symbol Association. Once students have developed the awareness of phonemes of spoken language, they must learn how to map the phonemes to symbols or printed letters. Sound-symbol association must be taught and mastered in two directions: visual to auditory (reading) and auditory to visual (spelling). Additionally, students must master the blending of sounds and letters into words as well as the segmenting of whole words into the individual sounds. The instruction of sound-symbol associations is often referred to as phonics. Although phonics is a component of Structured Literacy, it is embedded within a rich and deep language context.

Syllable Instruction. A syllable is a unit of oral or written language with one vowel sound. Instruction includes teaching of the six basic syllable types in the English language: closed, vowel-consonant-*e*, open, consonant-*le*, *r*-controlled, and vowel pair. Knowledge of syllable types is an important organizing idea. By knowing the syllable type, the reader can better determine the sound of the vowel in the syllable. Syllable division rules heighten the reader's awareness of where a long, unfamiliar word may be divided for great accuracy in reading the word.

Morphology. A morpheme is the smallest unit of meaning in the language. The Structured Literacy curriculum includes the study of base words, roots, prefixes, and suffixes. The word *instructor*, for example, contains the root *struct*, which means *to build*, the prefix *in*, which means *in* or *into*, and the suffix *or*, which means *one who*. An instructor is one who builds knowledge in his or her students.

Syntax. Syntax is the set of principles that dictate the sequence and function of words in a sentence in order to convey meaning. This includes grammar, sentence variation, and the mechanics of language.

Semantics. Semantics is that aspect of language concerned with meaning. The curriculum (from the beginning) must include instruction in the comprehension of written language.

PAGE 1-2 (WHEREAS #2)

International Dyslexia Association (2018) Reading Rockets. *Structured Literacy Instruction: The Basics*. Retrieved from:

<https://www.readingrockets.org/article/structured-literacy-instruction-basics>

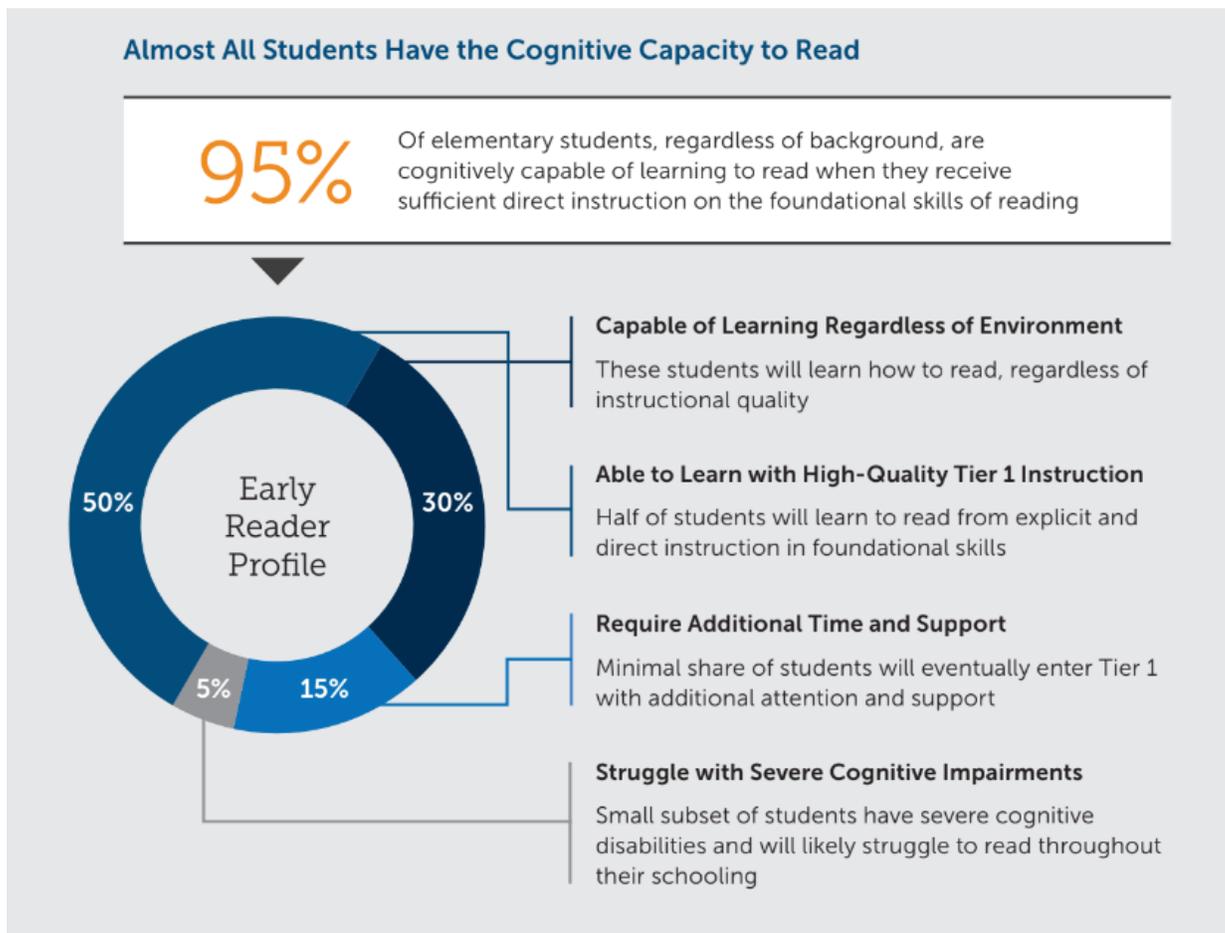
Truth Be Told: There's No Excuse for Poor Outcomes

The National Institute of Health (NIH) indicates that nearly all children have the cognitive capacity to learn to read, estimating that only 5% of young readers have severe cognitive impairments that would make acquiring reading skills extremely difficult.

While the remaining 95% of students have the capacity to read, not every student will learn to read under the same conditions. An estimated 30% of students will learn to read regardless of how they were taught. However, roughly half of students will need high-quality Tier 1 instruction in foundational skills, and an additional 15% of students will require additional time and support to meet their reading potential.

PAGE 6 (WHEREAS #2)

District Leadership Forum (2019) *Narrowing the Third Grade Reading Gap*. Retrieved from: https://www.idaontario.com/wp-content/uploads/2019/10/EAB-2019-Narrowing-the-Third-Grade-Reading-Gap_research-briefing.pdf



PAGE 7 (WHEREAS #2)

District Leadership Forum (2019) *Narrowing the Third Grade Reading Gap*. Retrieved from: https://www.idaontario.com/wp-content/uploads/2019/10/EAB-2019-Narrowing-the-Third-Grade-Reading-Gap_research-briefing.pdf

A Different Approach Is Needed to Improve Reading

Common District Initiatives Not Improving Scores

Students' reading struggles are certainly not due to a lack of effort. Every year, districts invest significant time and resources, yet, most districts report seeing little improvement.

In seeking ways to better address persisting reading gaps, many districts have turned to pre-kindergarten access as a strategy for narrowing the word gap and improving literacy outcomes. While research suggests a number of positive effects, a 2015 randomized-control, longitudinal study conducted by Vanderbilt University found that although preschool improves kindergarten reading outcomes, these positive effects are not sustained beyond kindergarten. Closing the third-grade reading gap requires a different approach.

WHEREAS #2

Districts Invest Significant Time and Resources in Reading...

-  Extending School Days or Literacy Time Blocks
-  Hiring Literacy Specialists or Instructional Coaches
-  Updating Instructional and Curricular Materials
-  Purchasing 1:1 Reading-Related Technology

...Yet Often See Minimal Lasting Results



It feels like we've tried everything and anything to improve reading, but nothing seems to really work. In the end, we keep seeing very similar outcomes.

SUPERINTENDENT,
SOUTHWEST DISTRICT

Pre-K Helpful, but Not Sufficient

Key Findings Regarding the Effects of Pre-K on Reading, Vanderbilt Peabody Study (2015)

- Improves Kindergarten Readiness**
Students who attended pre-K had higher reading outcomes at the start of kindergarten.
- Effects on Reading Are Not Sustained**
By the end of kindergarten, students who attended pre-K were no longer significantly outperforming those who didn't attend.

PAGE 8 (WHEREAS #2)

District Leadership Forum (2019) *Narrowing the Third Grade Reading Gap*. Retrieved from: https://www.idaontario.com/wp-content/uploads/2019/10/EAB-2019-Narrowing-the-Third-Grade-Reading-Gap_research-briefing.pdf

Good News: Science Provides a Blueprint for Reading

WHEREAS #2

The good news is that multidisciplinary research provides valuable insight into how schools can improve reading outcomes for all children. For nearly 30 years, over 40 research centers nationwide that represent diverse fields—including neuroscience, linguistics, medicine, and child psychology—have examined how the human brain develops the ability to read. These various research disciplines draw surprisingly similar conclusions on the science behind learning to read and what effective reading instruction should entail.

Decades of Neuroscience Research Provide Insight on How Students Learn to Read



42 Research centers nationwide examine reading-related brain activity



30 Years of brain-based research dedicated to learning to read

Science Has Implications for How to Teach Reading...

We [NICHD] have multidisciplinary [research] teams—including cognitive neuroscientists and pediatricians—who have developed a body of information on reading and the brain that can inform practice in schools and policy.

DR. G. REID LYON

National Institute of Child Health and Human Development



...And How Schools Can Help Struggling Readers Read

Every year, there are hundreds of newly published, scientifically oriented research reports on reading...There is ample research that shows how weak readers can make substantial reading gains, with a fairly large percentage developing normalized reading skills.

DR. DAVID KILPATRICK

Professor of Psychology, SUNY Cortland

PAGE 9 (WHEREAS #2)

District Leadership Forum (2019) *Narrowing the Third Grade Reading Gap*. Retrieved from: https://www.idaontario.com/wp-content/uploads/2019/10/EAB-2019-Narrowing-the-Third-Grade-Reading-Gap_research-briefing.pdf

There Is No Single “Reading Region”

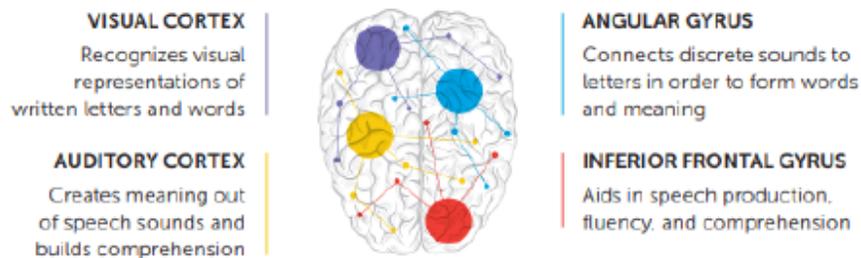
WHEREAS #2

Reading is an incredibly complex activity that involves building neural pathways among these four discrete regions of the brain. Therefore, educators should provide sufficient direct instruction to develop the foundational skills associated with each function. This includes language fluency, phonological awareness, orthography, phoneme-grapheme correspondence, and fluency.

Interestingly, neuroscience indicates that there are physiological explanations for why it is critical for children to learn to read by Third-Grade. According to a longitudinal study conducted by UC San Francisco, the growth in volume of white matter—the neural pathways in a child’s brain—between kindergarten and Third-Grade is one of the best predictors of how well a child will learn to read. In fact, the study found that 56% of the variance in reading outcomes can be attributed to the change in volume of white matter during this critical time.

Reading Requires Building Neural Circuits Across Critical Brain Regions

Regions of the Brain Activated While Reading, as Viewed in fMRI Scans



Early Reading Instruction That Builds Neural Pathways Is Essential



The quality of reading instruction impacts a child’s brain white matter development—the neuropathways that connect areas of the brain

56%

Of variance in reading outcomes is accounted for by the change in volume in white matter between kindergarten and third grade

PAGE 18 (WHEREAS #2)

District Leadership Forum (2019) *Narrowing the Third Grade Reading Gap*. Retrieved from: https://www.idaontario.com/wp-content/uploads/2019/10/EAB-2019-Narrowing-the-Third-Grade-Reading-Gap_research-briefing.pdf

Research Confirms: Strong Readers Decode

WHEREAS #2

Unfortunately, too many students progress in school without fully mastering all foundational reading skills. More often than not, educators place greater emphasis on language comprehension than on word decoding. One reason is because teaching comprehension using engaging books is easier than teaching phonics. As a result, a large share of young readers are encouraged to use context clues and pictures to guess words they don't know, rather than decode them.

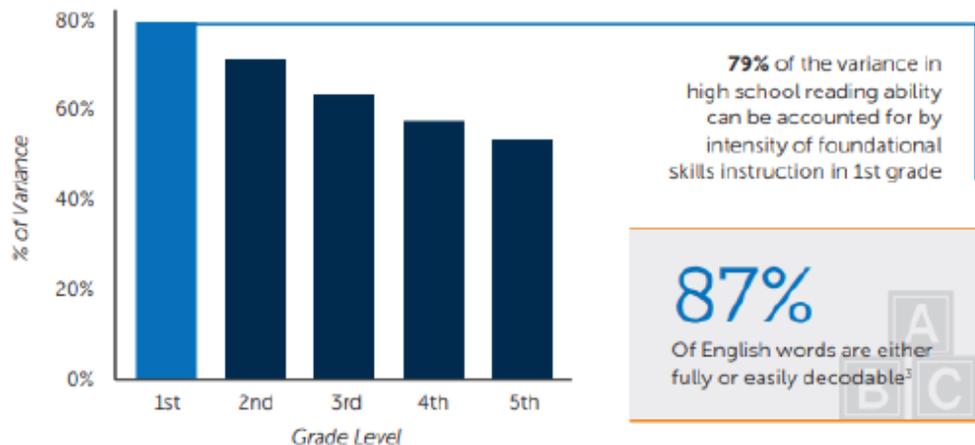
Numerous research studies across multiple disciplines have found that the best readers decode unfamiliar words, while poor readers guess.

The data below is from a longitudinal study conducted by Yale University that compared students' reading ability over the course of ten years. The study found that the primary distinguishing factor between strong and poor readers in high school was the intensity of their foundational skills instruction in first grade.

Given that decoding skills are clearly necessary for future reading success and most words in English are fully or partially decodable, it is imperative that educators provide all students with sufficient, direct instruction around word decoding.

A Focus on Foundational Skills in Early Grades Is Essential for Future Reading Success

Influence of Early Decoding Skills-Focused Instruction on Reading Comprehension Ability in Later Grades



PAGE 20 (WHEREAS #2 & #3)

District Leadership Forum (2019) *Narrowing the Third Grade Reading Gap*. Retrieved from: https://www.idaontario.com/wp-content/uploads/2019/10/EAB-2019-Narrowing-the-Third-Grade-Reading-Gap_research-briefing.pdf

Reading Mastery Is an Ongoing Progression

WHEREAS #2

Phases of a Student's Reading Development

When teaching foundational skills throughout elementary school, research suggests educators should teach both word decoding and language comprehension in each grade, but at varying levels of intensity. Reading instruction in kindergarten through Third-Grade should have a greater focus on word decoding until students become fluent readers. Although comprehension, particularly vocabulary, should be incorporated in early-grade reading instruction, it should not be taught at the expense of providing young students sufficient practice in phonemic awareness and phonics.

WORD DECODING

Emerging Pre-reader 5 years old and younger	<ul style="list-style-type: none">• Aware of the letters in the alphabet• Knows that language is made up of small units called words and even smaller units called letters• Understands what books are and the kinds of experiences they can create
Novice Reader Grades K-1	<ul style="list-style-type: none">• Distinguishes between and blends sounds• Aware of orthographic conventions, spelling patterns• Uses semantic knowledge to aid decoding and vice versa• Understands the alphabetic principle• Develops strategies for sounding out unknown words• Segments words into syllables, syllables into sounds
Decoding Reader Grades 2-3	<ul style="list-style-type: none">• Aware of the morphophonemic³ principles of language• Reads more often and at increased speed (semi-fluency)• Has added ~3,000 decodable words to one's lexicon
Fluent, Comprehending Reader	<ul style="list-style-type: none">• Decodes nearly automatically, freeing up working memory for higher-level executive functioning

PAGE 24 (WHEREAS #2)

District Leadership Forum (2019) *Narrowing the Third Grade Reading Gap*. Retrieved from: https://www.idaontario.com/wp-content/uploads/2019/10/EAB-2019-Narrowing-the-Third-Grade-Reading-Gap_research-briefing.pdf

WHEREAS #7

Limitations of Status Quo Early Elementary Reading Instruction

60%

Of elementary teachers have **never been trained** in strategies for teaching phonemic awareness, phonics, vocabulary, fluency, and comprehension

95%

Of early elementary classrooms **spend insufficient time** providing direct instruction on all English phonemes

80%

Of early elementary teachers encourage students to **use pictures or context clues** to identify unfamiliar words

WHEREAS #8



A look at the research reveals that the methods commonly used to teach children to read are inconsistent with basic facts about human cognition and development and therefore make learning to read more difficult than it should be....In short, what happens in classrooms isn't adequate for many children.

MARK SEIDENBERG

Cognitive Neuroscientist, University of Wisconsin-Madison

PAGE 31 (WHEREAS #7 & #8)

District Leadership Forum (2019) *Narrowing the Third Grade Reading Gap*. Retrieved from: https://www.idaontario.com/wp-content/uploads/2019/10/EAB-2019-Narrowing-the-Third-Grade-Reading-Gap_research-briefing.pdf

Higher Education **Inadequately Prepares Teachers**

Most Higher Ed Programs Fail to Teach the Science of Reading

Scientific reading research has also had minimal impact on teacher preparation programs, and the vast majority of teacher education programs fail to adequately prepare teachers to teach reading. A recent study conducted by the National Center for Teacher Quality (NCTQ) examined reading-related course and degree requirements across schools of education. The findings reveal that few teacher education programs provide any opportunities for future teachers to learn the science of reading or receive training in evidence-based instruction strategies.

Equally troubling, many teacher-licensing exams across the country do not require elementary teacher candidates and special education candidates to demonstrate knowledge of the five components of reading and evidence-based reading instruction. Given that teachers are rarely taught this information and are usually not expected to learn it, it is not surprising that many teachers struggle to provide high-quality reading instruction.

WHEREAS #7

WHEREAS #8

PAGE 34 (WHEREAS #7 & #8)

District Leadership Forum (2019) *Narrowing the Third Grade Reading Gap*. Retrieved from: https://www.idaontario.com/wp-content/uploads/2019/10/EAB-2019-Narrowing-the-Third-Grade-Reading-Gap_research-briefing.pdf

Most Schools of Education Fail to Prepare Educators to Teach Reading

31%

Of teacher preparation programs devote no coursework to reading science

39%

Of teacher undergraduate elementary education programs provided instruction in all five components of reading

46%

Of undergraduate elementary education programs teach phonemic awareness

23%

Of graduate elementary education programs teach scientifically based reading methods

WHEREAS #8

Most State Teacher-Licensing Exams Fail to Test the Five Components of Reading

Percentage of State Teacher-Licensing Exams That Test Teachers' Reading Knowledge

n=51



22%

Require a test of the science of reading for elementary and special education teacher candidates

78%

Do not require a test of the science of reading for both elementary and special education teacher candidates

WHEREAS #7

PAGE 35 (WHEREAS #7 & #8)

District Leadership Forum (2019) *Narrowing the Third Grade Reading Gap*. Retrieved from: https://www.idaontario.com/wp-content/uploads/2019/10/EAB-2019-Narrowing-the-Third-Grade-Reading-Gap_research-briefing.pdf

Good News: Science Provides a Blueprint for Reading

WHEREAS #2

The good news is that multidisciplinary research provides valuable insight into how schools can improve reading outcomes for all children. For nearly 30 years, over 40 research centers nationwide that represent diverse fields—including neuroscience, linguistics, medicine, and child psychology—have examined how the human brain develops the ability to read. These various research disciplines draw surprisingly similar conclusions on the science behind learning to read and what effective reading instruction should entail.

Decades of Neuroscience Research Provide Insight on How Students Learn to Read



42 Research centers nationwide examine reading-related brain activity



30 Years of brain-based research dedicated to learning to read

Science Has Implications for How to Teach Reading...

We [NICHD] have multidisciplinary [research] teams—including cognitive neuroscientists and pediatricians—who have developed a body of information on reading and the brain that can inform practice in schools and policy.

DR. G. REID LYON

National Institute of Child Health and Human Development



...And How Schools Can Help Struggling Readers Read

Every year, there are hundreds of newly published, scientifically oriented research reports on reading....There is ample research that shows how weak readers can make substantial reading gains, with a fairly large percentage developing normalized reading skills.

DR. DAVID KILPATRICK

Professor of Psychology, SUNY Cortland

PAGE 38 (WHEREAS #2)

District Leadership Forum (2019) *Narrowing the Third Grade Reading Gap*. Retrieved from: https://www.idaontario.com/wp-content/uploads/2019/10/EAB-2019-Narrowing-the-Third-Grade-Reading-Gap_research-briefing.pdf

Interestingly, these districts did not collaborate with one another, but they all implemented a remarkably similar approach to improving reading, leading to similarly impressive results.

Our series of interviews with leaders from these districts revealed that their success was the result of integrating the science of reading into each reading-related system, rather than deploying a standalone program or initiative.

WHEREAS #2

PERFORMANCE AFTER	WHAT THEY DID
99% Of kindergarteners reading on or above grade level in 2017	<ul style="list-style-type: none">• Science-of-reading training• Data summits• Skills-based grouping• Summer learning focused on literacy
84% Of kindergarteners scored at or above the DIBELS benchmark composite score in 2018	<ul style="list-style-type: none">• Science-of-reading training• New curriculum• Skills-based grouping• Summer learning focused on literacy
6th Highest-performing school district out of 55 districts total in the state in 2016	<ul style="list-style-type: none">• Science-of-reading training• Data summits• Skills-based grouping• Summer learning focused on literacy

PAGE 39 (WHEREAS #2)

District Leadership Forum (2019) *Narrowing the Third Grade Reading Gap*. Retrieved from: https://www.idaontario.com/wp-content/uploads/2019/10/EAB-2019-Narrowing-the-Third-Grade-Reading-Gap_research-briefing.pdf

Resource #6

Dyslexia is the trillion-dollar problem we don't know we have.

Dyslexia and its consequences are estimated to cost California approximately \$12 billion in 2020 and \$1 trillion over the next 60 years.

Dyslexia is a learning disability that results in the learner struggling to read or write.¹ While millions of people in California struggle with dyslexia—experts estimate up to 15% to 20% of the population²—few actually know dyslexia is at the root of their learning issues.³ Among those that have been diagnosed, few receive adequate treatment.⁴

This is preventable. Investing in early screening and teacher training would provide an astonishing 800% to 2000% return. This reflects an upfront investment of less than 10% of this year's \$12 billion cost to kick-start the initiative. This investment is projected to break even in seven years and unlocks 5% of California's yearly budget. A return of this scale dwarfs those of other state projects—for example, California's High-Speed Rail is projected to yield a 250% return.⁵ This is because the cost of addressing dyslexia early in a student's

WHEREAS #6

PAGE 1 - WHEREAS #6

1.1 Financial Cost of Dyslexia

Neglecting dyslexic learners has a huge financial cost to society. Dyslexia will cost the state of California \$12 billion this year. Projecting out the next 60 years (representing the working

BOSTON CONSULTING GROUP

July 2020

WHEREAS #6

Whitepaper

3

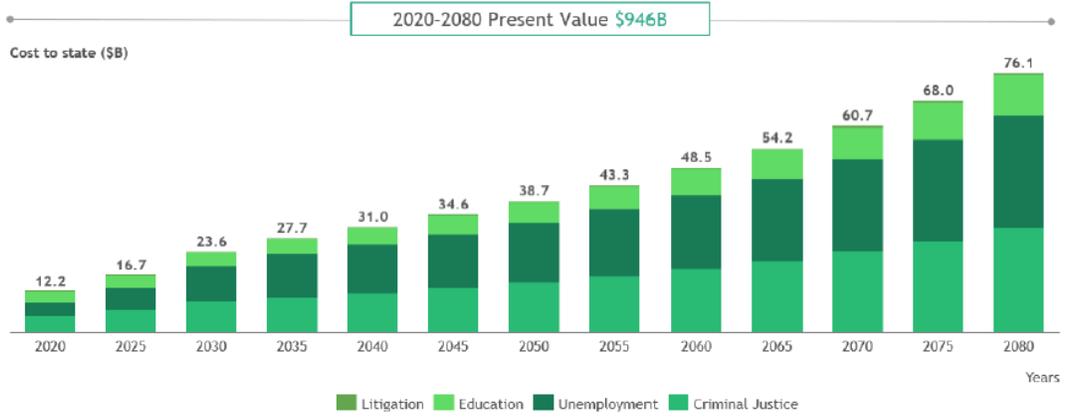
lifetime of students now entering school) the cost will be \$1 trillion. (See Figure 1). These costs accumulate over time, starting in kindergarten and continuing throughout an individual's lifetime. Within the model, we have included costs pertaining to education, litigation, unemployment, and criminal justice.

PAGE 1-3 (WHEREAS #6)

Boston Consulting Group; UCSF Dyslexia Center (2020) *The Economic Impact of Dyslexia on California*. Retrieved from:

<https://media-publications.bcg.com/The-Economic-Impact-of-Dyslexia-on-California-Whitepaper-Final.pdf>

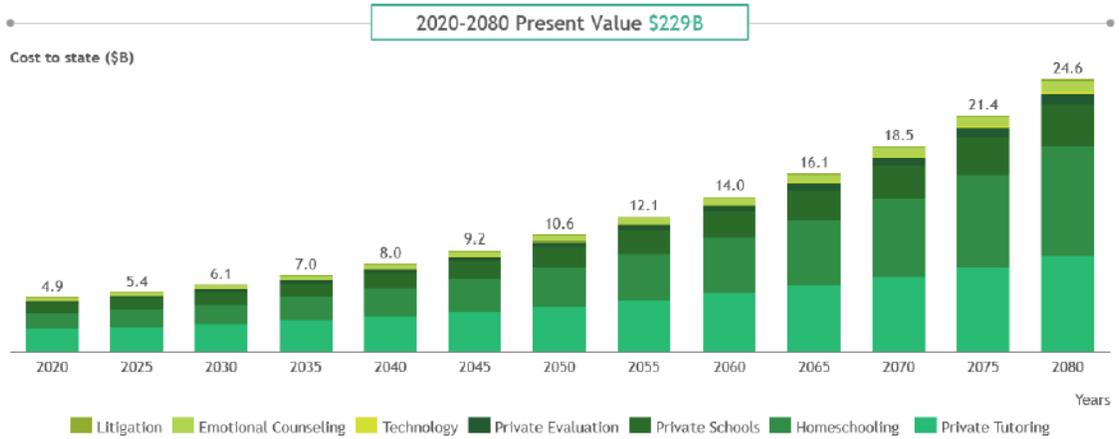
Figure 1. Financial Cost of Dyslexia to the State of California



Source: Economic Model. See Appendix A.

PAGE 3 (WHEREAS #6)

Figure 2. Financial Cost of Dyslexia to Families



Source: Economic Model. See Appendix A.

PAGE 4 (WHEREAS #6)

Boston Consulting Group; UCSF Dyslexia Center (2020) *The Economic Impact of Dyslexia on California*. Retrieved from:

<https://media-publications.bcg.com/The-Economic-Impact-of-Dyslexia-on-California-White-paper-Final.pdf>

Many educators feel inadequately trained to teach students to read and write,¹²⁴ and fewer than 20% feel “very well prepared” to teach children with learning disabilities.¹²⁵ Early intervention by teachers is imperative for addressing dyslexia appropriately, so teachers must be trained adequately.¹²⁶ As a result, we propose implementing a statewide training of evidence-based literacy techniques for all pre-kindergarten to eighth grade reading teachers.

WHEREAS #7

While there are many literacy approaches, literacy teachers must teach children the structure of language, particularly early on in a child’s education.¹²⁷ These methods have been proven as effective by researchers for decades, according to a congressional study in 1999 based on studies conducted since the 1960s.¹²⁸ In addition to past success, these interventions have also been successful in the present decade. In 2014-2015, Mississippi implemented a statewide literacy intervention which involved retraining teachers on phonics. (See Mississippi case study)¹²⁹. They experienced a six percentage point growth in reading proficiency.¹³⁰

WHEREAS #8

Furthermore, teacher preparation can impact more than just student literacy—it also impacts teacher retention. As stated earlier, teachers feel ill-equipped to teach literacy, and spend hours per week searching for effective resources for their students as a result.¹³¹ By receiving effective training, teachers will be better supported and prepared to **effectively** teach their students. And when teachers are better supported and prepared, they are more likely to stay in the classroom.¹³²

Training all of California’s literacy teachers will be an undertaking. A proposed approach is to spend the next three to five years providing all existing and new literacy teachers a continuing education training on research-based literacy instruction. Ideally, this education can be fully incorporated into regular teacher education for new teachers and therefore not require a supplemental investment once the current teacher population is trained.

PAGE 24 (WHEREAS #7 & #8)

Boston Consulting Group; UCSF Dyslexia Center (2020) *The Economic Impact of Dyslexia on California*. Retrieved from:

<https://media-publications.bcg.com/The-Economic-Impact-of-Dyslexia-on-California-White-paper-Final.pdf>

evidence-based literacy practices into their teaching, until eventually they are reading experts themselves.

WHEREAS #7

These changes will require coordination and testing before full implementation, as well as an upfront investment of time and energy from teachers. However, these investments in effective teacher preparation will lead to stronger student performance, increased teacher retention, and better teacher support—all key to driving the program ROI.

WHEREAS #8

Assistive technology

Although early assessment and teacher training are the primary fundamental requirements for a solution, investments in assistive technology can provide additional benefits. Computer-based learning programs, audiobooks, and other tools can help provide more targeted instruction to each student. Students can use these tools to supplement their traditional in-class education if more focused instruction is needed for their learning difference. These solutions can take many forms and, as the technological center of the world, no state is better equipped than California to make strides in developing new and innovative solutions. We encourage California's innovators and entrepreneurs to take up this call and meet the need for assistive technologies inside California's schools.

PAGE 25 (WHEREAS #7 & #8)

Boston Consulting Group; UCSF Dyslexia Center (2020) *The Economic Impact of Dyslexia on California*. Retrieved from:

<https://media-publications.bcg.com/The-Economic-Impact-of-Dyslexia-on-California-Whitepaper-Final.pdf>

Resource #7

Over the past decade, Americans have become increasingly concerned about the high numbers—and costs—of high school dropouts. In 2007, nearly 6.2 million young people (16% of the 16–24 age group) were high school dropouts.¹ Every student who does not complete high school costs our society an estimated \$260,000 in lost earnings, taxes, and productivity.² High school dropouts also are more likely than those who graduate to be arrested or have a child while still a teenager,³ both of which incur additional financial and social costs. Behind these statistics, as one military expert notes, lies a “demographic surprise”: The current pool of qualified high school graduates is neither large enough nor skilled enough to supply our nation’s workforce, higher education, leadership, and national security needs.

In 1965, President Lyndon Johnson supported the Head Start program as an action taken in the national defense because too many young Americans could not pass the military’s basic skills entrance test. We are at a similar point today: An estimated

75% of Americans aged 17 to 24 cannot join the U.S. military—26 million young Americans—most often because they are poorly educated, involved in crime, or physically unfit, according to a report by Mission: Readiness.⁴ In an increasingly global and technological economy, employers struggle to find enough educated, competent, and accountable workers. And community colleges and other institutions of higher education spend considerable time and resources on remedial coursework for students who simply are not prepared for post-secondary education despite having a high school diploma.

Growing awareness of these realities has produced a common sense consensus around the need to mobilize around and invest in dropout prevention. But the process of dropping out begins long before a child gets to high school. It stems from loss of interest and motivation in middle school, often triggered by retention in grade and the struggle to keep up academically. A major cause of retention is failure to master the knowledge and content needed to progress

WHEREAS #6

PAGE 5 (WHEREAS #6)

The Annie E. Casey Foundation Kids Count Data Center. (2010). *Early Warning! Why Reading by the End of Third Grade Matters*. Retrieved from:

https://assets.aecf.org/m/resourcedoc/AECF-Early_Warning_Full_Report-2010.pdf

TABLE 1

Percent of 4th graders scoring below proficient and below basic on NAEP reading test, by geography and family income: 2009

GEOGRAPHIC AREA ¹	BELOW PROFICIENT			BELOW BASIC		
	ALL STUDENTS	LOW-INCOME STUDENTS ²	MODERATE- AND HIGH-INCOME STUDENTS	ALL STUDENTS	LOW-INCOME STUDENTS ²	MODERATE- AND HIGH-INCOME STUDENTS
Total	67	83	55	33	49	20
City	71	85	55	39	54	22
Suburb	62	81	52	28	47	19
Town	71	83	59	35	48	22
Rural	67	81	58	31	45	21

¹ Geographic areas are based on U.S. Census data describing proximity to an urbanized area (a densely settled core with densely settled surrounding areas), using four categories (City, Suburb, Town, Rural).

² Family income is measured using students’ eligibility for the National School Lunch Program, a federally assisted meal program, sometimes referred to as the free/reduced-price lunch program. Free or reduced-price lunches are offered to students with incomes below 185% of the poverty level.

SOURCE Annie E. Casey Foundation analysis of data from the NAEP Data Explorer, available at <http://nces.ed.gov/nationsreportcard/naepdata/>

TABLE 2

Percent of 4th graders scoring below proficient and below basic on NAEP reading test, by family income and race/ethnicity: 2009

RACE/ETHNICITY ¹	BELOW PROFICIENT			BELOW BASIC		
	ALL STUDENTS	LOW-INCOME STUDENTS ²	MODERATE- AND HIGH-INCOME STUDENTS	ALL STUDENTS	LOW-INCOME STUDENTS ²	MODERATE- AND HIGH-INCOME STUDENTS
Total	67	83	55	33	49	20
White	58	76	52	22	38	17
Black	84	89	74	52	58	38
Hispanic	83	87	72	51	56	36
Asian/Pacific Islander	51	70	43	20	35	14
American Indian	80	85	69	50	59	34

¹ Categories exclude Hispanic origin. Results are not shown for students whose race/ethnicity was unclassified.

² Family income is measured using students' eligibility for the National School Lunch Program, a federally assisted meal program, sometimes referred to as the free/reduced-price lunch program. Free or reduced-price lunches are offered to students with incomes below 185% of the poverty level.

SOURCE Annie E. Casey Foundation analysis of data from the NAEP Data Explorer, available at <http://nces.ed.gov/nationsreportcard/naepdata/>

PAGE 6 (WHEREAS #1)

The Annie E. Casey Foundation Kids Count Data Center. (2010). *Early Warning! Why Reading by the End of Third Grade Matters*. Retrieved from:

https://assets.aecf.org/m/resourcedoc/AECF-Early_Warning_Full_Report-2010.pdf

Moreover, although NAEP scores have shown incremental increases over the past 15 years within most subpopulations of students, disparities in reading achievement persist across racial and ethnic groups. The share of low-income Black, Hispanic, and Native American students who score below proficient on the NAEP reading test is catastrophically high (89%, 87%, and 85%, respectively) and much larger than the share of low-income white or Asian/Pacific Islander students (76% and 70%). Similar differences occur at NAEP's basic achievement level.

PAGE 7 (WHEREAS #1)

The Annie E. Casey Foundation Kids Count Data Center. (2010). *Early Warning! Why Reading by the End of Third Grade Matters*. Retrieved from: https://assets.aecf.org/m/resourcedoc/AECF-Early_Warning_Full_Report-2010.pdf

countries that outperform the United States in reading is growing.¹⁵

The education achievement gap leads to a productivity gap between the United States and other countries. McKinsey & Company estimates that if U.S. students had met the educational achievement levels of higher-performing nations between 1983 and 1998, America's GDP in 2008 could have been \$1.3 trillion to \$2.3 trillion higher.¹⁶ In that sense, the education gap has "created the equivalent of a permanent, deep recession in terms of the gap between actual and potential output in the economy," McKinsey asserts.¹⁷ U.S. Secretary of Education Arne Duncan puts it this way: "We have to educate our way to a better economy."¹⁸

WHEREAS #5

Demographic realities make the reading gap too large a problem to ignore. Let's do the math: **There are 7.9 million low-income children from birth through age 8—one-fifth of all kids in this age group.¹⁹ If current trends hold true, 6.6 million of these children (83%²⁰) are at increased risk of failing to graduate from high school on time because they won't be able to meet NAEP's proficient reading level by the end of third grade.**

Changes to the United States' racial/ethnic composition also command attention. By 2023, more than half of the country's student population will be non-white,²¹ and by 2042, the majority of the overall U.S. population will be non-white.²² (In many states that play a critical role in the U.S. economy, such as California, the change has already arrived.) The fastest-growing subpopulation is Hispanic/Latino—indeed, by 2050, nearly one in three U.S. residents will be Hispanic²³—yet Hispanic children have some of the poorest educational outcomes in the country. Simultaneously, the Baby Boom generation is reaching

retirement age and must be replaced in the workforce. And so, as *New York Times* editorialist Bob Herbert notes, "If America is to maintain its leadership position in the world and provide a first-rate quality of life for its citizens here at home, the educational achievement of American youngsters *across the board* [emphasis added] needs to be ratcheted way up."²⁴

The world economy demands a more educated workforce, and grade-level reading proficiency is the key. Students who cannot read proficiently are especially unlikely to obtain a post-secondary degree, which is necessary for the kind of jobs that make America globally competitive in the age of information and communications technology. And adult workers who cannot read well are less able to acquire new skills and adapt to new needs in a fast-changing global marketplace.

Analyses of data from the Organization for Economic Cooperation and Development (OECD) indicate that the United States will need 60% of its population to possess a post-secondary degree or credential by 2025 to remain globally competitive.²⁵ Currently, 30% of all adult workers in the United States hold four-year degrees, an attainment rate second only to Norway.²⁶ But if we look at the rate among the youngest adult workers—those workers on whom our future depends—the United States ranked sixth among OECD nations in 2006, behind Norway, the Netherlands, South Korea, Denmark, and Sweden.²⁷ If we look at two-year degrees, the U.S. attainment rate for all workers is only average and has fallen over time.²⁸ To achieve the OECD goal for workers with post-secondary degrees, the United States will need to produce 16 million more graduates above

PAGE 11 (WHEREAS #5)

The Annie E. Casey Foundation Kids Count Data Center. (2010). *Early Warning! Why Reading by the End of Third Grade Matters*. Retrieved from: https://assets.aecf.org/m/resourcedoc/AECF-Early_Warning_Full_Report-2010.pdf

WHEREAS #3

Reading proficiently by the end of third grade (as measured by NAEP at the beginning of fourth grade) can be a make-or-break benchmark in a child's educational development. Up until the end of third grade, most children are *learning to read*. Beginning in fourth grade, however, they are *reading to learn*, using their skills to gain more information in subjects such as math and science, to solve problems, to think critically about what they are learning, and to act upon and share that knowledge in the world around them. Up to half of the printed fourth-grade curriculum is incomprehensible to students who read below that grade level, according to the Children's Reading Foundation.⁹ And three quarters of students who are poor readers in third grade will remain poor readers in high school, according to researchers at Yale University.¹⁰ Not surprisingly, students with relatively low literacy achievement tend to have more behavioral and social problems in subsequent grades¹¹ and higher rates of retention in grade. The National Research Council asserts that "academic success, as defined by high school graduation, can be predicted

with reasonable accuracy by knowing someone's reading skill at the end of third grade. A person who is not at least a modestly skilled reader by that time is unlikely to graduate from high school."¹²

Low achievement in reading has important long-term consequences in terms of individual earning potential, global competitiveness, and general productivity. At an individual level, the median annual income of a high school dropout in 2007 was \$23,000, compared with \$48,000 for someone who obtained a bachelor's or higher degree¹³—a considerable difference for anyone trying to support a family and be economically self-sufficient. Globally, the United States performs poorly against our trading partners and competitors in comparisons of reading achievement. Fourth-graders in 10 of 45 educational jurisdictions around the world who were tested in 2006 scored significantly higher in reading literacy than their counterparts in the United States, including children in Russia, Hong Kong, Singapore, parts of Canada, and Hungary.¹⁴ The number of

PAGE 10 (WHEREAS #3)

The Annie E. Casey Foundation Kids Count Data Center. (2010). *Early Warning! Why Reading by the End of Third Grade Matters*. Retrieved from: https://assets.aecf.org/m/resourcedoc/AECF-Early_Warning_Full_Report-2010.pdf

Children must be *ready* to succeed when they get to school (cognitively, socially, emotionally, and physically) before they can learn there. They also need to be *present* at school—attending regularly—because they can't learn if they aren't there. And they need to have *high-quality learning opportunities*, beginning at birth and continuing in school and during out-of-school time, including summers, in order to sustain learning gains and not lose ground. For millions of American children, however, these essential conditions are not met.

WHEREAS #4

For low-income children in particular, a “readiness gap” fuels much of what has become known as the achievement gap. Readiness includes being in good health; having the support of a strong family; feeling safe; and having positive social interaction skills, language skills, the motivation to learn, emotional and behavioral self-control, and physical skills and capacities. Education and policy leaders on both sides of the aisle recognized the importance of readiness in the Goals 2000: Educate America Act, signed into law in 1994, which called for all children to have

access to high-quality, developmentally appropriate preschool programs and the nutrition, physical activity experiences, and health care “needed to arrive at school with healthy minds and bodies and to maintain the mental alertness necessary to be prepared to learn.”³⁴ Despite that aspiration, however, an acute readiness gap often begins at birth, continues growing until school entry, and leads to an achievement gap that persists through each subsequent year of schooling.

The gap begins at birth for children born low birthweight, prematurely, with congenital health problems, or affected by prenatal exposure to toxic substances. Children aren't born with an equal chance at the American Dream, as Ron Haskins and Isabel Sawhill point out in *Creating an Opportunity Society*,³⁵ and one of the most basic and early differences has to do with health at birth. Low-birthweight babies are at greater risk than normal-weight babies for neurodevelopmental problems (e.g., cerebral palsy, blindness, and mental retardation), behavioral problems, and attention deficit

PAGE 15 (WHEREAS #4)

The Annie E. Casey Foundation Kids Count Data Center. (2010). *Early Warning! Why Reading by the End of Third Grade Matters*. Retrieved from: https://assets.aecf.org/m/resourcedoc/AECF-Early_Warning_Full_Report-2010.pdf

WHEREAS #4

hyperactivity disorder (ADHD)³⁶—all of which can interfere with learning and school success. KIDS COUNT data show that 8% of all children nationally have low birthweight,³⁷ but the percentage is higher for children born to low-income mothers (10%) than for higher-income children (6%).³⁸ Newborns whose mothers have low levels of education are more likely than newborns of more-educated mothers to have been exposed prenatally to cigarette smoke, alcohol, drugs, and folic acid deficiencies, which can cause preterm birth, intrauterine growth retardation, and long-lasting effects on the child’s cognition and behavior.³⁹

The readiness gap continues between birth and kindergarten due to differences in children’s resources and opportunities for physical, linguistic, cognitive, social, emotional, and behavioral development.

Disparities in developmental outcomes “emerge in infancy and widen in toddlerhood. By the time children from low-income families enter kindergarten, they are typically 12–14 months below national norms in language and pre-reading skills.”⁴⁰

Low-income children have a higher incidence of health problems that interfere with learning, such as chronic asthma, poor

hearing, vision and dental problems, ADHD,⁴¹ frequent headaches, heart conditions, kidney disease, epilepsy, digestive problems, and mental retardation.⁴² Almost 10% of low-income children under age 8 have a physical or mental health condition that limits their activities, compared with 6% of middle-income children.⁴³ Children are less likely to be in excellent or very good health at 9 and 24 months if they come from low-income families, racial/ethnic minority groups, homes where English isn’t spoken, and/or mothers with low education levels.⁴⁴ Moreover, low-income children receive less, and lower-quality, medical care—and fare less well as a result—than wealthier children who have the same health problems.⁴⁵

Too many children from low-income families lack early interactions that foster linguistic development, including verbal interactions with their parents, being read to, and access to books in their home, compared with children from middle-income families.⁴⁶ Vocabulary development by age 3 has been found to predict reading achievement by third grade.⁴⁷ Preschoolers whose parents (especially mothers) read to them,⁴⁸ tell stories, or sing songs tend to develop larger vocabularies,⁴⁹ become better readers, and perform better in school, while children who lack this

PAGE 16 (WHEREAS #4)

The Annie E. Casey Foundation Kids Count Data Center. (2010). *Early Warning! Why Reading by the End of Third Grade Matters*. Retrieved from: https://assets.aecf.org/m/resourcedoc/AECF-Early_Warning_Full_Report-2010.pdf

WHEREAS #4

stimulation during early childhood tend to arrive at school with measurably weaker language, cognitive, and memory skills.⁵⁰ By age 3, children from wealthier families typically have heard 30 million more words than children from low-income families.⁵¹

Some children don't develop the social and emotional skills needed to function in a structured environment like school before they reach school age. These capacities, which are just as essential as cognitive skills for school success, include: the ability to manage emotions, follow directions, take turns, share, take responsibility, work independently and cooperatively, and stick with a task; motivation; enjoyment of learning; and the executive function—an ability to control oneself, make plans, learn rules, act appropriately, and think in abstract terms. Low-income children who are rated relatively high on social skills in kindergarten and first grade tend to have better literacy skills than children with low social skills ratings, a trend that continues into third grade.⁵² Between 9% and 14% of children ages birth through 5 experience socio-emotional problems that negatively impact their function, development, and school readiness.⁵³

Low-income children are less likely than middle-income children to participate in high-quality early childhood and pre-kindergarten programs that prepare children to succeed in school. Nationally, only about 47% of 3- and 4-year-olds are enrolled in a preschool program of any kind.⁵⁴ State-funded programs, arguably the type most affordable for low-income families,

The readiness gap becomes an achievement gap when children enter school, and this gap persists over the students' school experience. McKinsey & Company found a gap of two to three years of learning between low-income and higher-income students in its analysis of average NAEP scores (10 points on the NAEP test are roughly equal to one year of education).⁵⁹ For many low-income students, the achievement gap is exacerbated by low-performing schools; chronic absence; summer reading loss; and stressors like childhood hunger and food insecurity, housing insecurity, and family mobility.

Too many children attend low-performing schools or schools that are "not ready" to teach to high standards—under-resourced schools that are not organized to fulfill the expectation that they will serve as portals to equal opportunity. In low-performing schools, the curriculum is "shallow, overly broad, [and] fails to teach students basic skills,"⁶⁰ rather than being content-rich, challenging, developmentally appropriate, aligned with standards and assessments, culturally responsive, and built around a coherent scope and sequence so it can serve as a road map for learning.

Although the National Reading Panel identified five essential components of reading instruction,⁶¹ those elements are not always made part of schools' curriculum or instruction. Unclear guidelines leave teachers to figure out for themselves "what to teach, what order to teach it in, how to teach it, and to what level."⁶² Assessments often are inappropriate—mismatched to children's

PAGE 17 (WHEREAS #4)

The Annie E. Casey Foundation Kids Count Data Center. (2010). *Early Warning! Why Reading by the End of Third Grade Matters*. Retrieved from:

https://assets.aecf.org/m/resourcedoc/AECF-Early_Warning_Full_Report-2010.pdf

TABLE 3

Percent of 4th graders who scored below proficient and basic levels on NAEP reading test, by race/ethnicity, family income, and school income: 2009

RACE/ETHNICITY ¹	SCHOOL INCOME ²	BELOW PROFICIENT		BELOW BASIC	
		FAMILY INCOME ³ LOW INCOME	MODERATE TO HIGH INCOME	FAMILY INCOME ³ LOW INCOME	MODERATE TO HIGH INCOME
TOTAL					
	Moderate- to high-income schools	76	49	39	16
	Low-income schools	85	65	53	28
WHITE					
	Moderate- to high-income schools	72	47	33	14
	Low-income schools	77	59	40	22
BLACK					
	Moderate- to high-income schools	83	67	48	30
	Low-income schools	90	79	60	44
HISPANIC					
	Moderate- to high-income schools	82	64	44	29
	Low-income schools	88	79	58	45
ASIAN/PACIFIC ISLANDER					
	Moderate- to high-income schools	66	39	26	12
	Low-income schools	71	55	39	24
AMERICAN INDIAN					
	Moderate- to high-income schools	75	60	45	25
	Low-income schools	86	74	59	40

¹ Categories exclude Hispanic origin. Results are not shown for students whose race/ethnicity was unclassified.

² School income is measured by whether or not the school has high rates of low-income children and receives Title I funds to support school-wide programs.

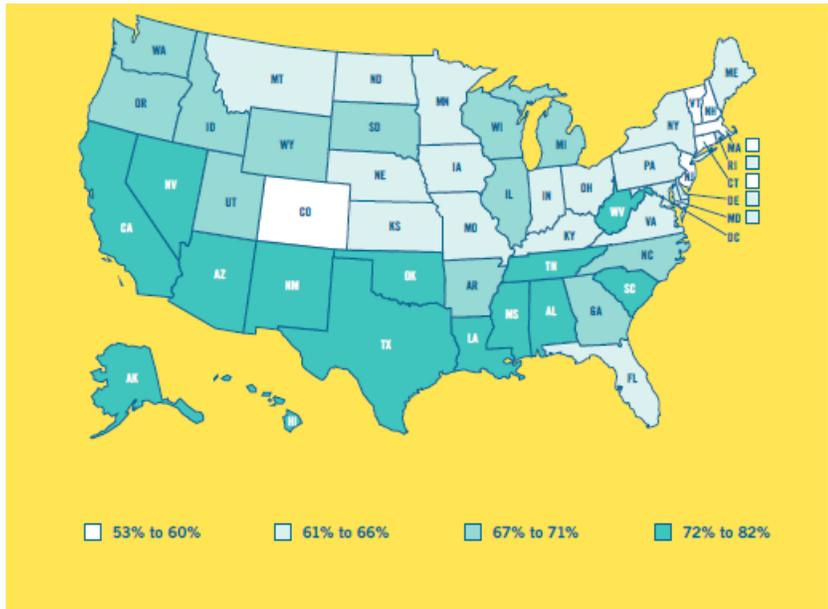
³ Family income is measured using students' eligibility for the National School Lunch Program, a federally assisted meal program, sometimes referred to as the free/reduced-price lunch program. Free or reduced-price lunches are offered to students with incomes below 185% of the poverty level.

SOURCE Annie E. Casey Foundation analysis of data from the NAEP Data Explorer, available at <http://nces.ed.gov/nationsreportcard/naepdata/>

PAGE 19 (WHEREAS #1)

The Annie E. Casey Foundation Kids Count Data Center. (2010). *Early Warning! Why Reading by the End of Third Grade Matters*. Retrieved from:

https://assets.aecf.org/m/resourcedoc/AECF-Early_Warning_Full_Report-2010.pdf



4th graders who scored below proficient reading level

2009

68%

68% of 4th grade public school students in the United States scored below proficient reading level in 2009. Rates vary from a high of 82% in Louisiana to a low of 53% in Massachusetts.

State	Rank	%	State	Rank	%
United States	N.R.	68%	Missouri	11	64%
Alabama	37	72%	Montana	17	65%
Alaska	42	73%	Nebraska	17	65%
Arizona	45	75%	Nevada	46	76%
Arkansas	35	71%	New Hampshire	3	59%
California	46	76%	New Jersey	5	60%
Colorado	5	60%	New Mexico	49	80%
Connecticut	2	58%	New York	11	64%
Delaware	17	65%	North Carolina	29	68%
District of Columbia	N.R.	83%	North Dakota	17	65%
Florida	11	64%	Ohio	11	64%
Georgia	35	71%	Oklahoma	37	72%
Hawaii	43	74%	Oregon	32	69%
Idaho	29	68%	Pennsylvania	8	63%
Illinois	29	68%	Rhode Island	11	64%
Indiana	23	66%	South Carolina	37	72%
Iowa	23	66%	South Dakota	25	67%
Kansas	17	65%	Tennessee	37	72%
Kentucky	11	64%	Texas	37	72%

DEFINITION Fourth grade students who scored below proficient as measured and defined by the National Assessment of Educational Progress (NAEP) reading test in 2009.
NOTES Estimates for number of students represented are not available. Data include public school students only and therefore national data may not match other data cited in the report for all students.
SOURCE U.S. Department of

PAGE 43 (WHEREAS #1)

The Annie E. Casey Foundation Kids Count Data Center. (2010). *Early Warning! Why Reading by the End of Third Grade Matters*. Retrieved from: https://assets.aecf.org/m/resourcedoc/AECF-Early_Warning_Full_Report-2010.pdf

**4th graders
who scored
below proficient
reading level
BY RACE AND
HISPANIC ORIGIN**

2009

DEFINITION Fourth grade students who scored below proficient as measured and defined by the National Assessment of Educational Progress (NAEP) reading test in 2009, by race and Hispanic origin.

NOTES Estimates for number of students represented are not available. Data include public school students only and therefore national data may not match other data cited in the report for all students. Race categories exclude Hispanic origin. Results are not shown for students whose race or Hispanic origin was not classified.

SOURCE U.S. Department of Education, National Center for Education Statistics, National Assessment of Educational Progress (NAEP), 2009 Reading

State	White	Black	Asian/ Pacific Islander	American Indian	Hispanic
United States	59%	85%	52%	78%	84%
Alabama	64%	87%	—	—	82%
Alaska	62%	87%	81%	91%	73%
Arizona	63%	80%	59%	88%	86%
Arkansas	65%	86%	—	—	84%
California	61%	86%	52%	—	89%
Colorado	49%	73%	47%	—	82%
Connecticut	48%	78%	45%	—	85%
Delaware	53%	81%	43%	—	76%
District of Columbia	25%	89%	—	—	83%
Florida	55%	82%	44%	—	69%
Georgia	60%	85%	47%	—	80%
Hawaii	58%	82%	78%	—	73%
Idaho	64%	—	67%	—	86%
Illinois	56%	89%	37%	—	84%
Indiana	62%	85%	—	—	85%
Iowa	64%	78%	54%	—	80%
Kansas	60%	80%	50%	—	80%
Kentucky	61%	87%	44%	—	78%
Louisiana	72%	91%	—	—	84%
Maine	64%	82%	—	—	—
Maryland	50%	81%	41%	—	70%
Massachusetts	44%	77%	44%	—	80%
Michigan	64%	91%	58%	—	83%
Minnesota	57%	88%	66%	80%	87%
Mississippi	65%	90%	—	—	81%
Missouri	60%	84%	—	—	74%
Montana	63%	—	—	84%	74%
Nebraska	60%	81%	60%	—	80%
Nevada	66%	86%	62%	—	87%
New Hampshire	58%	72%	55%	—	70%
New Jersey	49%	82%	38%	—	81%
New Mexico	65%	87%	61%	90%	86%
New York	55%	82%	48%	—	78%
North Carolina	56%	86%	48%	82%	83%
North Dakota	63%	—	—	84%	—
Ohio	58%	87%	—	—	70%
Oklahoma	67%	89%	—	73%	83%
Oregon	65%	83%	57%	83%	87%
Pennsylvania	58%	85%	39%	—	86%
Rhode Island	56%	83%	70%	—	86%
South Carolina	62%	89%	—	—	83%
South Dakota	63%	—	—	89%	71%
Tennessee	66%	88%	—	—	84%
Texas	57%	80%	48%	—	82%
Utah	64%	86%	70%	83%	90%
Vermont	58%	71%	—	—	—
Virginia	53%	82%	43%	—	74%

PAGE 44 (WHEREAS #1)

The Annie E. Casey Foundation Kids Count Data Center. (2010). *Early Warning! Why Reading by the End of Third Grade Matters*. Retrieved from:

https://assets.aecf.org/m/resourcedoc/AECF-Early_Warning_Full_Report-2010.pdf

Achievement Gap in Reading Is Present as Early as First Grade and Persists through Adolescence

Emilio Ferrer, PhD¹, Bennett A. Shaywitz, MD^{2,3,4}, John M. Holahan, PhD^{2,3}, Karen E. Marchione, MA^{2,3},
Reissa Michaels, MSW^{2,3}, and Sally E. Shaywitz, MD^{2,3}

Objectives To determine if differences between dyslexic and typical readers in their reading scores and verbal IQ are evident as early as first grade and whether the trajectory of these differences increases or decreases from childhood to adolescence.

Study design The subjects were the 414 participants comprising the Connecticut Longitudinal Study, a sample survey cohort, assessed yearly from 1st to 12th grade on measures of reading and IQ. Statistical analysis employed longitudinal models based on growth curves and multiple groups.

Results As early as first grade, compared with typical readers, dyslexic readers had lower reading scores and verbal IQ, and their trajectories over time never converge with those of typical readers. These data demonstrate that such differences are not so much a function of increasing disparities over time but instead because of differences already present in first grade between typical and dyslexic readers.

Conclusions The achievement gap between typical and dyslexic readers is evident as early as first grade, and this gap persists into adolescence. These findings provide strong evidence and impetus for early identification of and intervention for young children at risk for dyslexia. Implementing effective reading programs as early as kindergarten or even preschool offers the potential to close the achievement gap. (*J Pediatr* 2015;167:1121-5).

WHEREAS #3

Developmental dyslexia is the most common neurobehavioral disorder in children, affecting 17%-21% of school-age population.^{1,2} Dyslexia is also the most comprehensively studied of the learning disabilities, affecting 80% of all children identified as learning-disabled.³ First described over a century ago, dyslexia is defined as an unexpected difficulty in reading for an individual's chronological age or intelligence.

At its core, dyslexia is a problem with a component of spoken language, phonological processing: that is, getting to the elemental sounds of speech, affecting both spoken and written language. As dyslexic children progress in school, given good instruction, reading accuracy often improves; however, lack of fluency (the ability to read not only accurately, but rapidly and with good intonation) persists and remains a lifelong problem. The landscape in dyslexia is changing rapidly. For example, in 2014 the Congressional Committee on Science, Space, and Technology held a hearing on "The Science of Dyslexia," and many new state laws now urge recognition of dyslexia.^{4,5} For the last decade, school policies have often emphasized that all children should be reading by third grade, a policy that perhaps has contributed to the delay of dyslexia diagnosis until after third grade.⁶

Here we report findings demonstrating that the achievement gap in reading between typical and dyslexic readers is evident as early as first grade and persists. We demonstrate further that typical and dyslexic readers do indeed differ in the trajectories of their reading scores and verbal IQ over time, from childhood to adolescence. Of particular importance, we demonstrate that such differences are not so much a function of increasing disparities over time but instead because of differences already present in first grade between typical and dyslexic readers.

PAGE 1121 (WHEREAS #3)

The Journal of Pediatrics (2015) *Achievement Gap in Reading is Present as Early as First Grade and Persists through Adolescence*. Retrieved from:

[https://www.jpeds.com/article/S0022-3476\(15\)00823-9/fulltext](https://www.jpeds.com/article/S0022-3476(15)00823-9/fulltext)

zero, denoting variability in both initial scores and changes over grades across individuals within each of the groups. These results indicate that both groups showed improvements in vocabulary scores across the nine grades. However, because of initial differences in first grade and the different rates of change, the disparity in vocabulary scores increases throughout the grades. This is visualized in **Figure 2, A (Vocabulary)**, which displays the predicted scores from the curve models for each of the groups. Typical readers have higher scores at first grade and slightly faster rates of change than dyslexic readers, resulting in group trajectories with initial gaps that expand over time.

WHEREAS #3

The next sections in **Table II** include results for information, comprehension, and similarities. In all cases, the intercept estimates (values in first grade) are statistically larger for typical than dyslexic readers. The slope estimates are also statistically higher for typical readers for information and comprehension, and not different across groups for similarities. For all verbal subsets, and regardless of the between-group differences, the slopes are positive. The resulting pattern of trajectories is consistent: positive changes across grades with a slightly diverging trajectory between both groups, except for similarities, for which the

trajectories remain parallel over time (**Figure 2, B-D**, for information, comprehension, and similarities, respectively).

Discussion

Our findings demonstrate that an achievement gap appears as early as first grade in dyslexic readers and persists. This finding has important implications. If the persistent achievement gap between dyslexic and typical readers is to be narrowed, or even closed, reading interventions must be implemented early, when children are still developing the basic foundation for reading acquisition. The persistent achievement gap poses serious consequences for dyslexic readers, including lower rates of high school graduation,⁶ higher levels of unemployment,¹⁷ and lower earnings because of lowered college attainment.¹⁸ Implementing effective reading programs early, even in preschool and kindergarten, offers the potential to reduce and perhaps even close the achievement gap between dyslexic and typical readers and bring their trajectories closer over time.

The argument for the benefits of early intervention is not new. It has been cast in terms of educational achievement

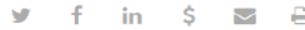
PAGE 1124 (WHEREAS #3)

The Journal of Pediatrics (2015) *Achievement Gap in Reading is Present as Early as First Grade and Persists through Adolescence*. Retrieved from:

<https://pubmed.ncbi.nlm.nih.gov/26323201/>

How badly did the pandemic deepen California's early reading crisis?

BY KAREN D'SOUZA
NOVEMBER 2, 2022



Above: Student Layleanah Booker, 9, reads from a book during a reading class at Ethel I. Baker Elementary School in Sacramento in California. Photo by Randall Benton / EdSource

While California's literacy crisis certainly predates the pandemic, with less than half of California children reading at grade level back in 2019, the fallout of the pandemic, the devastating impact of school closures and remote learning, has sent test scores plummeting further.

WHEREAS #1

Only 42.1% of third-graders can read at grade level on the state's latest Smarter Balanced test, down from 48.5% in 2019, a more than 6% percentage point decline. Disadvantaged third-graders fared even worse. The number who met the standard fell 7% percentage points from almost 37% in 2019 to 30% in 2022. Also troubling is the fact that the children who were in third grade in 2019 are now in sixth grade, and only 45.1% of them can read at grade level, suggesting that they're not catching up.

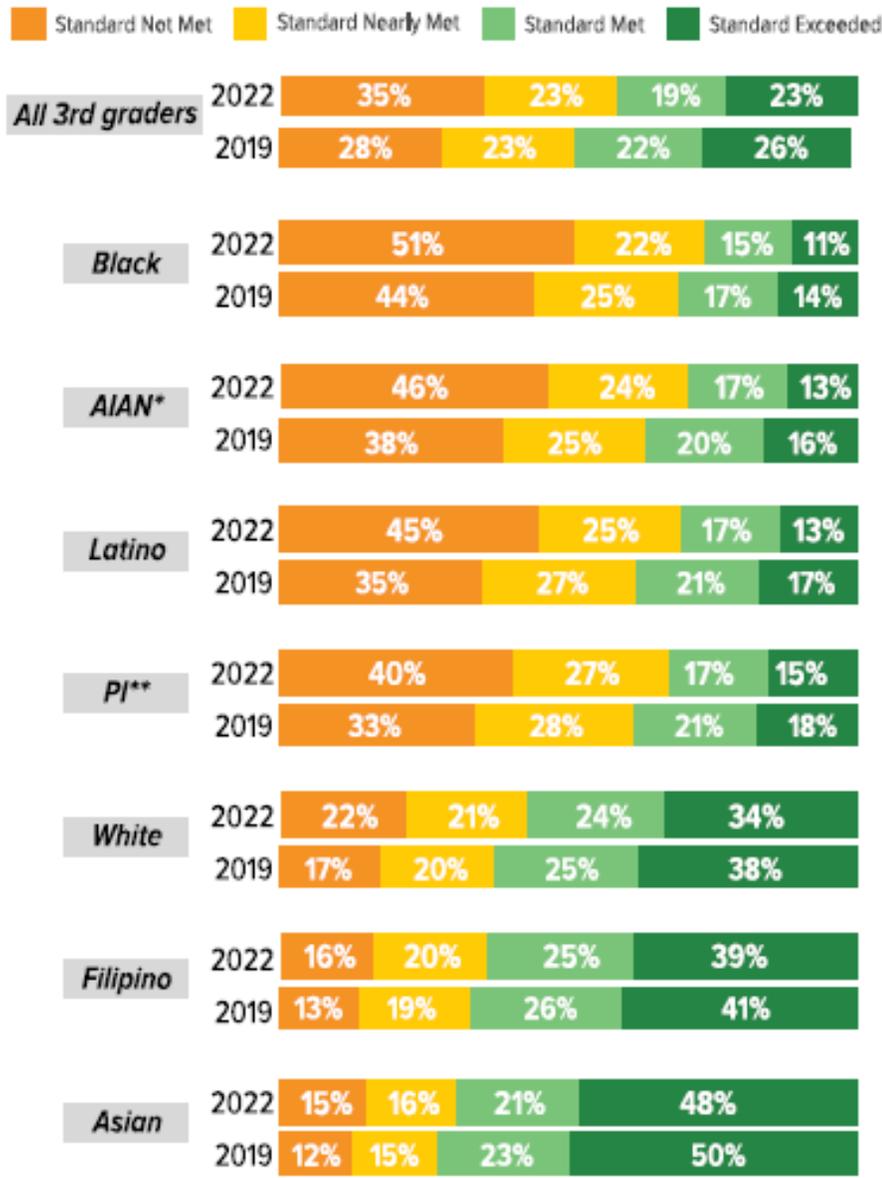
WHEREAS # 3

PAGE 1 (WHEREAS #1 & #3)

EdSource Special Report (2022) *How Badly did the Pandemic Deepen California's Early Reading Crisis?* Retrieved from:

<https://edsources.org/2022/how-badly-did-the-pandemic-deepen-californias-early-reading-crisis/680490#:~:text=Only%2042.1%25%20of%20third%2Dgraders,2019%20to%2030%25%20in%202022.>

English Language Arts results for 3rd graders



AIAN*: American Indian and Alaskan Native

PI**: Pacific Islander

Source: California Assessment of Student Performance and Progress

Chart by Yuxuan Xie

EdSource

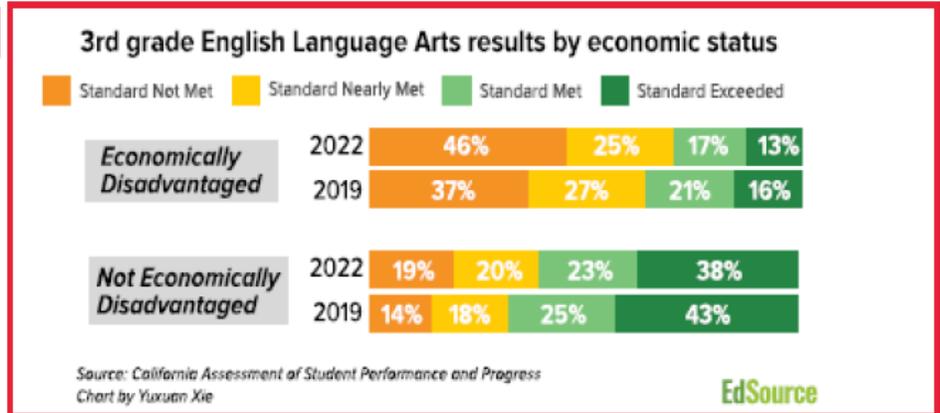
PAGE 2 (WHEREAS #1)

EdSource Special Report (2022) *How Badly did the Pandemic Deepen California's Early Reading Crisis?* Retrieved from:

<https://edsources.org/2022/how-badly-did-the-pandemic-deepen-californias-early-reading-crisis/680490#:~:text=Only%2042.1%25%20of%20third%2Dgraders,2019%20to%2030%25%20in%202022.>

“It’s long past due that California leaders declare these results proof of a statewide emergency,” says Mark Rosenbaum, the lead attorney in the groundbreaking 2017 lawsuit known as the Ella T. Ca that blamed the state of California for the deepening literacy crisis, “stop scapegoating children, teachers, and take responsibility for getting already marginalized students the academic and social and emotional supports they need to catch up now. Nothing less than their futures and the future of this state hang in the balance. It’s a matter of getting all of our children to tomorrow.”

WHEREAS #1



PAGE 3 (WHEREAS #1)

EdSource Special Report (2022) *How Badly did the Pandemic Deepen California’s Early Reading Crisis?* Retrieved from:
<https://edsources.org/2022/how-badly-did-the-pandemic-deepen-californias-early-reading-crisis/680490#:~:text=Only%2042.1%25%20of%20third%2Dgraders,2019%20to%2030%25%20in%202022.>

Resource #10

Do Poor Readers Feel Angry, Sad, and Unpopular?

Paul L. Morgan,

Population Research Institute, The Pennsylvania State University

George Farkas, and

University of California, Irvine

Qiong Wu

The Pennsylvania State University

Abstract

We investigated whether being poorly skilled in reading contributes to children's self-reported feelings of anger, distractibility, anxiety, sadness, loneliness, and social isolation. Data were analyzed from a longitudinal sub-sample of children ($N=2,751$) participating in the Early Childhood Longitudinal Study—Kindergarten Cohort. Multi-level logistic regression analyses indicated that poor readers in 3rd grade were more likely to consider themselves as angry, distractible, sad, lonely, and unpopular in 5th grade than those who had not been poor readers in 3rd grade. About 20% of 3rd grade poor readers reported feeling angry and unpopular in 5th grade. Being poorly skilled in mathematics increased children's risk of feeling sad or lonely, but not of feeling angry, distractible, or unpopular. The results provide additional empirical evidence that reading failure contributes to generalized socio-emotional maladjustment in young children.

WHEREAS #4

Keywords

poor readers; reading difficulties; mathematics difficulties; Matthew effect; socio-emotional maladjustment; behavior problems; self-perceptions

Poor reading ability has been repeatedly theorized to negatively impact children's socio-emotional adjustment (e.g., Spear-Swerling & Sternberg, 1994; Spira & Fischel, 2005). Stanovich (1986) hypothesized that early reading failure results in increasingly more generalized "behavioral/cognitive/motivational spinoffs" (p. 389) that further constrain children's cognitive growth and academic achievement. These spinoffs constitute "poor-get-poorer" or negative Matthew effects (e.g., p. 389), in that poor reading ability initiates and then reciprocally interacts with negative emotions (e.g., frustration, anxiety) and behaviors (e.g., task avoidance, withdrawal) to further reduce children's involvement in reading activities and so maintain their reading failure. Thus, early reading failure may initiate "a

PAGE 1 (WHEREAS #4)

Morgan, Paul L., Farkas, George and Wu, Qiong (2011) *Do Poor Readers Feel Angry, Sad and Unpopular?* Retrieved from:

<https://www.ncbi.nlm.nih.gov/pmc/articles/PMC4500191/>

causal chain of escalating negative side effects” (p. 364) that can become increasingly more generalized—“seeping into more and more areas of cognition and behavior” (p. 390)—as the developmental cycle continues.

WHEREAS #4

To date, most empirical studies have examined if poor reading negatively impacts “proximal” feelings and behaviors that are closely related to reading activities (e.g., Chapman, Tunmer, Prochnow, 2000; Viljaranta, Lerkkanen, Poikkeus, Aunola, & Nurmi, 2009). For instance, poor readers have been reported to feel less competent in reading, consider it to be difficult, be less motivated to read, and hold generally more negative attitudes towards learning to read (Chapman & Tunmer, 1997; Gottfried, 1990; Lepola, Salonen, & Vauras, 2000). The relation between poor reading ability and these negative reading-related perceptions steadily increases as children age (Chapman & Tunmer, 1995). Poor readers are also less likely to complete reading activities in classrooms (e.g., Morgan, Fuchs, Compton, Cordray, & Fuchs, 2008) or independently practice reading at home (Juel, 1988).

Fewer studies have evaluated whether poor reading ability negatively impacts “distal” feelings and behaviors that are not specific to reading activities. For example, poor readers have been reported to be more likely to act out or be aggressive (e.g., Morgan, Farkas, & Qiong, 2009; Trzesniewski, Moffitt, Caspi, Taylor, & Maughan, 2006), distractible or inattentive (Goldston et al., 2007; Morgan, Farkas, Tufis, & Sperling, 2008), and anxious and depressed (Arnold et al., 2005; Carroll, Maughan, Goodman, & Meltzer, 2005). Older poor readers have been reported to be more likely to consider or attempt suicide (Daniel et al., 2006).

These increasingly generalized negative Matthew effects should occur as children age (Stanovich, 1986). This happens because children begin to avoid reading activities both at home and in school, thereby further constraining growth in their basic reading skills, comprehension, and, eventually, cognitive functioning (Cunningham & Stanovich, 1991; Echols, West, Stanovich, & Zehr, 1996; Griffiths & Snowling, 2002; Guthrie, Schafer, & Huang, 2001; Senechal, LeFevre, Hudson, & Lawson, 1996). The children’s resulting inability to meet their classroom’s academic demands can lead to increasingly frequent feelings of frustration, agitation, withdrawal, and social isolation (e.g., Fleming, Harachi, Cortes, Abbott, & Catalano, 2004; Kellam, Mayer, Rebok, & Hawkins, 1998; Lane, Beebe-Frankenberger, Lambros, & Pierson, 2001; Wehby, Falk, Barton-Arwood, Lane, & Cooley, 2003). These feelings and behaviors may in turn further interfere with children’s learning.

One possible contributing mechanism to this cycle is children’s increasing use of social comparisons to their peers to judge their own relative skill level. For those children who begin to realize that their own skill level is markedly lower than their classmates, “feelings of inferiority, lack of motivation, and interpersonal hostility often result” (Chapman, 1988, p. 350). This should be especially likely to occur for elementary-aged schoolchildren who are poor readers. This is because learning to read constitutes a key academic expectation by the end of the primary grades. As these children’s reading failure become increasingly evident to their classmates, the children may begin to hold more negative self-concepts (Chapman et al., 2000), engage in more frequent task avoidance (Morgan et al., 2009), feel

PAGE 2 (WHEREAS #4)

Morgan, Paul L., Farkas, George and Wu, Quiong (2011) *Do Poor Readers Feel Angry, Sad and Unpopular?* Retrieved from:

<https://www.ncbi.nlm.nih.gov/pmc/articles/PMC4500191/>

depressed (Maughan, Rowe, Loeber, & Stouthamer-Loeber, 2003), and experience peer rejection and lower social status (Lopes, Cruz, & Rutherford, 2002).

Do poor readers feel angry, sad, and unpopular? Evidence that reading failure increases children's risk of socio-emotional maladjustment—and as early as the elementary grades—would have far-reaching theoretical and practical implications. Theoretically, evidence of such a relation should provide additional justification that early reading failure *may* constitute a “first-order” causal agent (or, to use Stanovich’s metaphor, the first link in a causal chain), in that its occurrence can initiate a “cascade” of negative side effects. Such investigations may also help identify the timing in which these negative effects begin to occur. Practically, finding that being a poor reader increases children’s risk of feeling angry, distractible, anxious, and unpopular should further justify the need for interventions that experimentally evaluate whether preventing or remediating poor reading ability results in improved socio-emotional adjustment in children. That is, preventing or remediating early reading failure may help children to become academically proficient *and* socio-emotionally well adjusted. Identifying potential malleable factors that help prevent socio-emotional maladjustment—especially those that are targetable by teachers and other school staff—is critical because children experiencing maladjustment are at greater risk of a range of negative long-term outcomes, including delinquency, depression, dropout, poverty, unemployment, and incarceration (e.g., Orth, Robins, Trzesniewski, Maes, & Schmitt, 2009; Schaeffer, Petras, Ialongo, Poduska, & Kellam, 2003; Sprague & Walker, 2000).

WHEREAS #4

PAGE 3 (WHEREAS #4)

Morgan, Paul L., Farkas, George and Wu, Quiong (2011) *Do Poor Readers Feel Angry, Sad and Unpopular?* Retrieved from:

<https://www.ncbi.nlm.nih.gov/pmc/articles/PMC4500191/>

Table 2

Percentage of Students Feeling Angry, Sad, Unpopular at 5th Grade, by 3rd Grade Poor Reading Ability, ECLS-K Data

3 rd Grade	5 th Grade			
	Poor Reader ^d	Percentage "Angry" ^a	Percentage "Sad" ^b	Percentage "Unpopular" ^c
Yes		32.02%	33.84%	19.64%
No		10.35%	9.81%	11.08%

Note.

^a"Angry" as measured by highest 10% score on Angry/Distractibility subscale;

^b"Sad" as measured by highest 10% score on Sad/Lonely/Anxious subscale;

^c"Unpopular" as measured by lowest 10% score on Peer Relations subscale;

^dPoor Reader as measured by lowest 10% score on Reading Test

WHEREAS #4

PAGE 20 (WHEREAS #4)

WHEREAS #4

Table 4

Predicted Percentages of Students Feeling Angry, Sad, Unpopular at 5th Grade, by 3rd Grade Poor Reading Ability, ECLS-K Data

3 rd Grade	5 th Grade			
	Poor Reader ^d	Predicted Percentage "Angry" ^a	Predicted Percentage "Sad" ^b	Predicted Percentage "Unpopular" ^c
Yes		17.62%	12.65%	21.29%
No		8.58%	7.93%	12.25%

Note. Predicted proportions were computed by fixing the value of all other covariates at their grand mean.

^a"Angry" as measured by highest 10% score on Angry/Distractibility subscale;

^b"Sad" as measured by highest 10% score on Sad/Lonely/Anxious subscale;

^c"Unpopular" as measured by lowest 10% score on Peer Relations subscale;

^dPoor Reader as measured by lowest 10% score on Reading Test.

PAGE 23 (WHEREAS #4)

Morgan, Paul L., Farkas, George and Wu, Quiong (2011) *Do Poor Readers Feel Angry, Sad and Unpopular?* Retrieved from:

<https://www.ncbi.nlm.nih.gov/pmc/articles/PMC4500191/>

NDTAC | The National Evaluation and Technical Assistance Center
for the Education of Children and Youth Who Are Neglected, Delinquent, or At Risk

January, 2010
Washington, D.C.

ISSUE BRIEF:

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

Mindee O'Cummings
Sarah Bardack
Simon Gonsoulin


www.neglected-delinquent.org

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 youth¹ (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.

WHEREAS #5

PAGE 1 (WHEREAS #5)

O'Cummings, Mindee, Bardack, Sarah, Gonsoulin, Simon (2010) *The Importance of Literacy for Youth Involved in the Juvenile Justice System*. Retrieved from:
<https://files.eric.ed.gov/fulltext/ED594436.pdf>

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

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).²

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, Meisel, & 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, Spindakis, Neld, & 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 1.5 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

PAGE 2 (WHEREAS #5)

O'Cummings, Mindee, Bardack, Sarah, Gonsoulin, Simon (2010) *The Importance of Literacy for Youth Involved in the Juvenile Justice System*. Retrieved from:

<https://files.eric.ed.gov/fulltext/ED594436.pdf>

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.² 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; Puzanichera, 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

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

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

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 score⁴ 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

WHEREAS #5

PAGE 3 (WHEREAS #5)

O'Cummings, Mindee, Bardack, Sarah, Gonsoulin, Simon (2010) *The Importance of Literacy for Youth Involved in the Juvenile Justice System*. Retrieved from:

<https://files.eric.ed.gov/fulltext/ED594436.pdf>

Illiteracy Among US Adults

Alyssa Clark and Chloe Haderlie

Summary

WHEREAS #5

Illiteracy affects a person's ability to fully participate in and contribute to society. About 18% of the US adult population is functionally illiterate. Hispanics, older people, and incarcerated people are more likely to be low literate than other US adults. Major factors influencing literacy development include education, socioeconomic status, learning English as a second language, learning disabilities, and crime. Many of the causes and consequences of illiteracy are intersecting and cyclical. Additionally, illiteracy is often perpetuated from parent to child and is likely to lead to higher chances of unemployment and poverty. Adult literacy programs with a developed curriculum and personalized instruction are the most effective ways to improve literacy. In order to prevent and treat illiteracy in the United States, collaboration between researchers, nonprofits, governments, and public schools will be necessary.

PAGE 1 (WHEREAS #5)

Clark, Alyssa, Haderlie, Chloe (2017) *Illiteracy Among US Adults*. Ballard Brief. Retrieved from: <https://ballardbrief.byu.edu/issue-briefs/illiteracy-among-adults-in-the-us>

Context

WHEREAS #4

The ability to read is an important skill for people to develop because it reduces the risk of poverty, increases employability, increases social inclusion, and leads to a healthy life.³ If a person cannot read or comprehend what she is reading, her ability to contribute to and participate in society is significantly limited. Many people think of literacy as the ability to read and illiteracy as the complete inability to read. Of equal importance, however, is low literacy, also known as functional illiteracy.⁶ A functionally illiterate person is able to read relatively short texts and understand simple vocabulary; however, he may struggle with basic literacy tasks such as reading and understanding menus, medical prescriptions, news articles, or children's books.⁷ In 2014, reports indicated that 18% of US adults (approximately 57.4 million people) are functionally illiterate. Other sources indicate that up to 90 million US adults lack basic literacy skills.⁸

Illiteracy has many negative impacts on individuals and society. Overall, low literate adults participate less in the labor force, earn less, and are less likely to read to their children, which may stunt their children's literacy development.⁹ As illiteracy may be passed from parent to child, subsequent generations are likely to suffer from unemployment and poverty. Other negative consequences of illiteracy include crime, poor health, low academic performance, and slow economic growth. It is estimated that these negative social and economic outcomes cost the United States \$362.49 billion annually.¹⁰ Countries with higher literacy rates have more national productivity, better health, and greater equality than nations with lower literacy rates.¹¹

WHEREAS #5

WHEREAS #6

PAGE 2 (WHEREAS #4, #5 & #6)

Clark, Alyssa, Haderlie, Chloe (2017) *Illiteracy Among US Adults*. Ballard Brief. Retrieved from: <https://ballardbrief.byu.edu/issue-briefs/illiteracy-among-adults-in-the-us>

Demographics

WHEREAS #5

Illiteracy tends to affect Hispanics, older people, and the incarcerated more than other US adults. Hispanics have the highest percentage of low literacy scores, followed by Blacks, Others, and Whites.¹⁶ Racial segregation and the number of non-native English speakers among minorities may correlate with low literacy in those groups. Older adults in all racial groups are also more likely to be low literate: about 28% of 66–74 year olds have the highest percentage of low literacy.¹⁷ This pattern may be due to increased access to education over time. As educational opportunities have expanded in the United States, younger generations have benefitted from the changes while older age groups have not. Another reason may be because some older adults do not continue to practice their literacy skills after completing their formal education. Finally, low-literate adults are overrepresented in US prisons (different reports indicate that 29%–60% of incarcerated adults are low literate).^{18,19}

PAGE 3 (WHEREAS #5)

Clark, Alyssa, Haderlie, Chloe (2017) *Illiteracy Among US Adults*. Ballard Brief. Retrieved from: <https://ballardbrief.byu.edu/issue-briefs/illiteracy-among-adults-in-the-us>

Results of a nationally representative survey from 2003,²⁰ in combination with US Census data from 2000,²¹ show correlations between illiteracy, low income, low levels of education, and unemployment. All of these issues are concentrated in Southern states and urban locations. Possible explanations for the intersectionality of race, poverty, age, and incarceration will be outlined in the following sections.

WHEREAS #5

Contributing Factors and Consequences

Note: Many of the contributing factors to illiteracy are both causes and consequences and will be addressed together.

Education

A quality education provides foundational literacy skills that contribute to adult literacy. When education is limited, literacy is limited. Among developed countries, the United States ranks 24 out of 35 countries in reading scores.²² Additionally, literacy rates have not improved over time, revealing that US schools continue to underperform. Socioeconomic and racial inequality in neighborhoods are correlated. Both inequalities lead to educational inequality. The intersection of these three inequalities is most heavily concentrated in urban areas.

Socioeconomic and racial inequality are interconnected. Both minority students and low-income students tend to underperform on tests and have low literacy levels. When a student living in poverty is also from a racial minority group, then he is even more likely to be low literate.²³ In many of the largest cities in the United States, a majority of students are from minority groups and three-quarters of students are poor.²⁴ In cities, where poverty and racial inequality intersect, students in 8th grade perform 8%-10% worse than students in rural, town, and suburban public schools on reading achievement tests.²⁵ Though many people mistakenly think that racial segregation has ended, research shows that US schools are currently re-segregating by race and income. These trends particularly affect Hispanic and black students.²⁶

PAGE 4 (WHEREAS #5)

Clark, Alyssa, Haderlie, Chloe (2017) *Illiteracy Among US Adults*. Ballard Brief. Retrieved from: <https://ballardbrief.byu.edu/issue-briefs/illiteracy-among-adults-in-the-us>

WHEREAS #5

Poverty and low literacy have a cyclical relationship. Low-literate adults are more likely to live in poverty than high-literate adults; about 43% of low-literate adults live in poverty, compared to only 5% of people at the highest literacy level.³⁸ Studies show that literacy levels vary more with socioeconomic status than with ethnicity or gender.³⁹

Poverty limits literacy development at all stages (see Figure xx). Research indicates that a mother's education is the most important indicator of her child's future educational achievement.⁴⁰ If a child's parent is illiterate, the parent will not be able to teach her child to read, increasing the likelihood that a child will be illiterate as well. Because language first develops orally, what a child hears at home will impact his or her future literacy abilities. Approximately 86%–98% of a child's vocabulary comes from his parent's vocabulary. The number and variety of words heard at home differ between wealthy and poor households. By age three, children in high-income homes have heard 30 million more words than children in low-income homes, significantly influencing the children's future literacy development.⁴¹

The Number of Words Addressed to Children Differs Across Income Groups

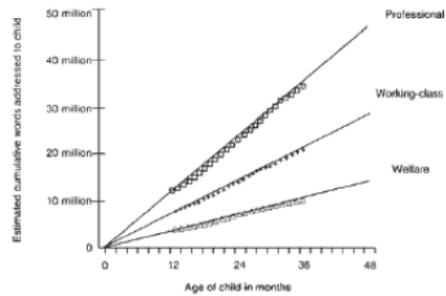


Figure 1.2

Additionally, low-income students are more likely than their wealthier peers to do the following:

- Develop reading and language acquisition skills later⁴²
- Not attend preschool⁴³
- Attend poorly funded schools⁴⁴
- Read less and have fewer books in the home⁴⁵
- Struggle to regulate emotions in social situations⁴⁶
- Develop learning challenges in attention, memory, and thinking⁴⁷
- Stop attending school to contribute to their family's income⁴⁸

Low literacy limits employment opportunities, leading to increased poverty rates and future poverty for the individuals affected. Many low-skill jobs are outsourced or may be replaced by technology, leaving many illiterate adults unemployed.⁴⁹ Approximately 24% of unemployed people in the United States are low literate, with higher percentages of low literacy among those who have

WHEREAS #6

PAGE 6 (WHEREAS #5 & #6)

less than a high school education.⁵⁰ These people have a difficult time finding work because they are unqualified for many jobs that require reading skills.⁵¹

PAGE 7 (WHEREAS #5)

Clark, Alyssa, Haderlie, Chloe (2017) *Illiteracy Among US Adults*. Ballard Brief. Retrieved from: <https://ballardbrief.byu.edu/issue-briefs/illiteracy-among-adults-in-the-us>

Crime

WHEREAS #5

Low literacy does not cause criminal behavior, but many of the contributing factors to low literacy also contribute to criminal behavior, which may lead to incarceration. Contributing factors to both low literacy and criminal behavior include racial inequality, poverty, and education.⁷¹ These factors make individuals more vulnerable to both crime and illiteracy.

Estimates of the percentage of incarcerated adults who are low literate range between 29%⁷² and 60%.⁷³ A 2007 federal and state prison literacy report shows that 69% of inmates are from a racial minority and 26% of inmates did not graduate high school or obtain a GED certification. Black and Hispanic inmates had lower literacy levels than their white peers.⁷⁴

Upon release from prison, former convicts are more likely than non-convicts to work at a low-wage job, remain uneducated, or be unemployed because of their criminal record or racial discrimination.⁷⁵ These factors increase the chances that they will commit another crime or live in poverty.⁷⁶ Some estimate that two-thirds of children who are not reading at their grade level by the fourth grade will end up in jail or on welfare.⁷⁷ Additionally, children who grow up with a parent in prison are more likely to face developmental challenges and adverse childhood experiences than children who grow up with neither parent incarcerated.^{78,79} Without parental support and guidance, the children of the incarcerated are also less likely to learn to read in the home. Again, these challenges affect blacks, Hispanics, and low-income families disproportionately; for example, a black child is nearly twice as likely as a white child to have a parent in prison (14% of black children have a parent in prison).⁸⁰

PAGE 8 (WHEREAS #5)

Clark, Alyssa, Haderlie, Chloe (2017) *Illiteracy Among US Adults*. Ballard Brief. Retrieved from: <https://ballardbrief.byu.edu/issue-briefs/illiteracy-among-adults-in-the-us>

Resource #13

Senate Bill SB488 Section 1. (a)(b)(c)(d)

https://leginfo.legislature.ca.gov/faces/billNavClient.xhtml?bill_id=202120220SB488

WHEREAS #7

SECTION 1.

The Legislature finds and declares all of the following:

- (a) All teachers, including teachers with multiple subject and education specialist teaching credentials, should be prepared to teach foundational reading.
- (b) The State Department of Education has adopted an English Language Arts/English Language Development (ELA/ELD) Framework that includes foundational reading.
- (c) The Commission on Teacher Credentialing has recently updated the teaching performance expectations for literacy and reading to align with the ELA/ELD Framework, specifically citing foundational reading, and to include guidelines for the identification of, and strategies to meet the needs of, pupils with dyslexia.
- (d) The Commission on Teacher Credentialing has developed a robust, data-driven accreditation system that monitors teacher preparation providers and requires teacher credential candidates to perform a minimum of 600 hours of clinical practice and student teaching.

SEC. 3.

Section 44259 of the Education Code is amended to read:

(4) Study of effective means of teaching literacy, including, but not limited to, the study of reading as described in subparagraphs (A) and (B), and evidence-based means of teaching foundational reading skills in print concepts, phonological awareness, phonics and word recognition, and fluency to all pupils, including tiered supports for pupils with reading difficulties, English learners, and pupils with exceptional needs. The study of effective means of teaching literacy shall be in accordance with the commission's standards of program quality and effectiveness and current teaching performance expectations, shall be aligned to the current English Language Arts/English Language Development (ELA/ELD) Framework adopted by the state board, and shall incorporate the program guidelines for dyslexia developed pursuant to Section 56335. The study of reading shall meet the following requirements:

(A) Commencing January 1, 1997, satisfactory completion of comprehensive reading instruction that is research based and includes all of the following:

- (i) The study of organized, systematic, explicit skills including phonemic awareness, direct, systematic, explicit phonics, and decoding skills.
- (ii) A strong literature, language, and comprehension component with a balance of oral and written language.
- (iii) Ongoing diagnostic techniques that inform teaching and assessment.
- (iv) Early intervention techniques.
- (v) Guided practice in a clinical setting.

(B) For purposes of this section, "direct, systematic, explicit phonics" means phonemic awareness, spelling patterns, the direct instruction of sound/symbol codes and practice in connected text, and the relationship of direct, systematic, explicit phonics to the components set forth in clauses (i) to (v), inclusive, of subparagraph (A).

(C) A program for the multiple subject teaching credential and the education specialist teaching credential also shall include the study of integrated methods of teaching language arts.

(WHEREAS #7 & #8)

California Senate Bill 488 *Requires All Accredited Teacher Preparation Programs to Meet the Reading Instruction Competence Assessment Standards that Align with Evidence-Based, Preparation Programs* (2021) Retrieved from:

https://leginfo.legislature.ca.gov/faces/billTextClient.xhtml?bill_id=202120220SB488

Resource #14

As Amends the Law Today

As Amends the Law on Nov 18, 2021

SECTION 1. *The Legislature finds and declares all of the following:*

- (a) All teachers, including teachers with multiple subject and education specialist teaching credentials, should be prepared to teach foundational reading.*
- (b) The State Department of Education has adopted an English Language Arts/English Language Development (ELA/ELD) Framework that includes foundational reading.*
- (c) The Commission on Teacher Credentialing has recently updated the teaching performance expectations for literacy and reading to align with the ELA/ELD Framework, specifically citing foundational reading, and to include guidelines for the identification of, and strategies to meet the needs of, pupils with dyslexia.*
- (d) The Commission on Teacher Credentialing has developed a robust, data-driven accreditation system that monitors teacher preparation providers and requires teacher credential candidates to perform a minimum of 600 hours of clinical practice and student teaching.*
- (e) The vast majority, at least 80 percent, of school districts are impacted by the teacher shortage, especially in math, science, bilingual education, and special education.*
- (f) Assessments of candidates for the purpose of state licensure must meet accepted standards of validity and reliability to ensure that candidates are assessed in an unbiased and consistent manner.*
- (g) The issuance of substandard permits and intern credentials has skyrocketed in recent years because of the teacher shortage, and holders of these substandard permits and intern credentials are disproportionately serving pupils of color, low-income pupils, and English learners.*
- (h) Recent research makes clear that fully credentialed teachers of color improve the school climate and pupil achievement, particularly for pupils of color.*
- (i) Current and recent administrations have invested or proposed to invest over \$1 billion to address the teacher shortage and support the entrance of qualified, diverse teacher candidates into the teaching profession.*

(4) Study of effective means of teaching literacy, including, but not limited to, the study of reading as described in subparagraphs (A) and (B), and evidence-based means of teaching foundational reading skills in print concepts, phonological awareness, phonics and word recognition, and fluency to all pupils, including tiered supports for pupils with reading difficulties, English learners, and pupils with exceptional needs. The study of effective means of teaching literacy shall be in accordance with the commission's standards of program quality and effectiveness and current teaching performance expectations, shall be aligned to the current English Language Arts/English Language Development (ELA/ELD) Framework adopted by the state board, and shall incorporate the program guidelines for dyslexia developed pursuant to Section 56335. The study of reading shall meet the following requirements:

(A) Commencing January 1, 1997, satisfactory completion of comprehensive reading instruction that is research based and includes all of the following:

- (i) The study of organized, systematic, explicit skills including phonemic awareness, direct, systematic, explicit phonics, and decoding skills.
- (ii) A strong literature, language, and comprehension component with a balance of oral and written language.
- (iii) Ongoing diagnostic techniques that inform teaching and assessment.
- (iv) Early intervention techniques.
- (v) Guided practice in a clinical setting.

(B) For purposes of this section, "direct, systematic, explicit phonics" means phonemic awareness, spelling patterns, the direct instruction of sound/symbol codes and practice in connected text, and the relationship of direct, systematic, explicit phonics to the components set forth in clauses (i) to (v), inclusive, of subparagraph (A).

(C) A program for the multiple subject teaching credential and the education specialist teaching credential also shall include the study of integrated methods of teaching language arts.

(WHEREAS #7 & #8)

California Senate Bill 488 passes; California Education Code 44252.6 is amended (2021)

Retrieved from:

https://leginfo.legislature.ca.gov/faces/billCompareClient.xhtml?bill_id=202120220SB488&showamends=false

WHEREAS #1

An estimated 5 to 15 percent of the population has dyslexia, the most common language disability, which hinders a person's ability to read words correctly and efficiently. But in Boston and countless other communities, Black and Latino families have a much harder time than their white peers accessing two key tools to literacy: an instructor trained in how best to teach struggling readers the connections between letters and sounds, or a private school focused on children with language disabilities. Nationally, these teachers and schools are scarce and coveted commodities, generally accessible only to those with time, money and experience navigating complicated, sometimes intransigent bureaucracies.

In recent years, some dyslexia activists across the country have joined forces with Black and Latino leaders distraught over unequal access—jointly positioning “the right to read” as a revived civil rights movement.

“A lot of people have started talking about dyslexia as a social justice issue,” said Nicole Patton-Terry, director of the Florida Center for Reading Research. “And you’re seeing them stand next to Black and brown folks who just want high quality education for their kids.”

Page 3 (WHEREAS #1)

While White Students Get Specialists, Struggling Black And Latino Readers Often Get Left On Their Own (2022) Retrieved from:

<https://hechingerreport.org/while-white-students-get-specialists-struggling-black-and-latino-readers-often-left-on-their-own/>

WHEREAS #1

In Boston, data show that both in the city’s private and public schools, white students have greater access than Black or Latino students to the most intensive, effective reading supports. In the public system, campuses with larger white student populations tend to employ significantly more teachers trained in programs designed specifically for students having difficulty learning to read, according to a Washington Post/Hechinger Report analysis of previously unreleased data obtained through an open records request last spring.

At the handful of schools with a majority white population, there’s an average of 3.5 such specialists. Schools with between 15 and 50 percent white students have two specialists, on average. And schools where fewer than 15 percent of students are white — the district average — employ just one such trained professional on average.

WHEREAS #1

WHEREAS #1

Overall, 82 percent of white students (excluding those attending schools that don’t have any elementary grades) have access to at least one specialist at their school, compared to 70 percent of Latino students and 61 percent of Black students. More than half of white students attend schools with two specialists, compared to 36 percent of Black and Latino students.

Boston public school students who struggle with reading are hugely reliant on these specialists because the district, unlike many others, has no known language-based programs or schools focused on reading remediation, said Elizabeth McIntyre, senior counsel at the EdLaw Project in Boston. The district does, however, have many separate classrooms for kids with behavior or emotional issues.

Page 3-4 (WHEREAS #1)

While White Students Get Specialists, Struggling Black And Latino Readers Often Get Left On Their Own (2022) Retrieved from:

<https://hechingerreport.org/while-white-students-get-specialists-struggling-black-and-latino-readers-often-left-on-their-own/>

WHEREAS #1

Nationally, there are persistent racial and socioeconomic gaps in reading performance. White eighth graders outperformed Black ones by 24 points and Hispanic eighth graders by 17 points, according to the National Assessment of Educational Progress, or NAEP, scores released in October. The reasons are multifaceted: Black and Hispanic students are more likely to attend schools with fewer resources and higher teacher turnover. They are more likely to come from low-income homes where getting basic needs met can interfere with school and learning. And they are less likely to have teachers from their racial and ethnic background, which numerous studies have shown depresses academic achievement.

In recent years, a growing number of experts, advocates and parents have argued that educators are often too quick to blame poor reading outcomes on families, particularly low-income ones, overlooking schools' own complicity in perpetuating unequal access.

In a May report pushing for stronger reading curricula in New York City schools, as well as an amped-up safety net for those who struggle, leaders of Advocates for Children of New York said that for too long it has been left up to families to ensure their children become literate. "Blame for low literacy rates is placed not on the system itself, but on individual students and their families," the report stated.

Page 5 (WHEREAS #1)

While White Students Get Specialists, Struggling Black And Latino Readers Often Get Left On Their Own (2022) Retrieved from:

<https://hechingerreport.org/while-white-students-get-specialists-struggling-black-and-latino-readers-often-left-on-their-own/>

WHEREAS #1

Boston's uneven safety net reflects a pervasive national problem, said Resha Conroy, founder of the New York-based Dyslexia Alliance for Black Children. "We've long talked about book deserts — geographic locations where there isn't a lot of access to books," she said. "We can apply this to structured literacy deserts — places where if your child needs a reading intervention or support it's very difficult to find. You have to go outside of your community." (Structured literacy includes methodical and explicit instruction in how to build words out of letter combinations.)

The Bronx, with a larger share of Black and Latino residents than any other New York City borough, is one example of a structured literacy desert, she said. It's the lone borough without an entire school focused on children with language-based learning disabilities. Conroy could find only one private tutor in the Bronx advertising expertise in an evidence-based program for helping struggling readers, compared to scores of such tutors in the other four boroughs.

Conroy became involved in racial equity in literacy after witnessing the treatment of her son, a Black male with dyslexia, by the public schools in New York's Westchester County. "I saw low education expectations for my son, and I heard loaded language suggesting that it was OK for him not to read," she said during a 2022 conference focused on literacy. "I saw the stage being set to make the failure to teach him to read acceptable."

Pages 6-7 (WHEREAS #1)

While White Students Get Specialists, Struggling Black And Latino Readers Often Get Left On Their Own (2022) Retrieved from:

<https://hechingerreport.org/while-white-students-get-specialists-struggling-black-and-latino-readers-often-left-on-their-own/>

WHEREAS #1

In Boston public schools, several forces contribute to the uneven distribution of reading specialists. Research has shown that white students are more likely than Black students to be classified as dyslexic, even after controlling for literacy skills and socioeconomic status. That diagnosis typically makes it easier to obtain school-based supports. White teachers may be less likely to suspect dyslexia or another reading problem in Black students because, on average, they hold lower expectations of Black students' academic potential. When assessing the same Black student, white teachers put their odds of graduating from high school as significantly lower than Black teachers do, according to a 2016 study from Johns Hopkins University researchers. (In Boston public schools, about 59 percent of the teachers are white, compared to about 15 percent of students.)

Moreover, schools that enroll predominantly Black and Hispanic students often face multiple, simultaneous challenges that can make it harder to identify the children who need the most specialized reading help, said Tim Odegard, Chair of Excellence in Dyslexic Studies at Middle Tennessee State University. "You don't have a context to find those kids who would need the most support, because you don't have a good base system," he said. In many of these schools, it's "not exceptional to fail to read and spell, it's the norm."

Page 7 (WHEREAS #1)

While White Students Get Specialists, Struggling Black And Latino Readers Often Get Left On Their Own (2022) Retrieved from:

<https://hechingerreport.org/while-white-students-get-specialists-struggling-black-and-latino-readers-often-left-on-their-own/>

WHEREAS #1

In Boston, families of color also have dramatically less access to private schools focused on reading remediation — and not just because they are less likely to be able to afford the tuition. The Carroll School and the Landmark School, the two largest and best known programs for Boston-area children with language disabilities, enroll just a handful of Black students, according to the most recent data from the National Center for Education Statistics. Both schools are in predominantly white Boston suburbs, though they enroll children from all over. At Carroll, 3 percent of the school’s 442 students were Black in the 2019-20 school year, and at Landmark, 4 percent of its students were Black that same year. Hispanic students constituted 7 percent and 3 percent of the schools’ populations, respectively. (Landmark said 16 percent of students identified as people of color last school year. Carroll said that in recent years, a quarter of the school’s new families have identified as people of color.)

Many of the students who attend Landmark get public assistance with tuition. They participate in what’s known as private placement: a federal guarantee that school districts must pay costs at a private school if they can’t meet the needs of a child with a disability. Families often have to spend thousands — even tens of thousands — on private evaluations to prove their child has a disability and then lawyers who can help build a case that the school district has failed to meet their needs.

Page 10 (WHEREAS #1)

While White Students Get Specialists, Struggling Black And Latino Readers Often Get Left On Their Own (2022) Retrieved from:

<https://hechingerreport.org/while-white-students-get-specialists-struggling-black-and-latino-readers-often-left-on-their-own/>

WHEREAS #1

Josh Clark, Landmark’s head of school, said it’s true that there’s “a specific profile of students that we think we serve well” at his school, and that includes many students with not just a language-based disability but ADHD. Black and Latino students are more likely on average, he added, to get diagnosed with multiple disabilities due to “an inherent bias in the referral and screening process.” And they are less likely on average to have the resources to access private placement. Both of those factors contribute to the racial disparities in enrollment. “I think that Landmark is earnest in its efforts, and we know that we should do more and will do more to address the vast need across the community.” Landmark is working with more than 50 public school districts, he said, to strengthen their language-based programs.

Page 12 (WHEREAS #1)

While White Students Get Specialists, Struggling Black And Latino Readers Often Get Left On Their Own (2022) Retrieved from:

<https://hechingerreport.org/while-white-students-get-specialists-struggling-black-and-latino-readers-often-left-on-their-own/>

Resource #16

In the high-functioning system we describe below, the primary focus is on assessing changes in children's reading abilities as a response to instruction and on building educators' capacity to deliver more intense, customized interventions.

WHEREAS #7

To be effective, such assessments and interventions need to be delivered through a seamless system of well-coordinated general and special education supports that emphasizes prevention, reduces inappropriate referral to and placement in special education as a function of low reading ability, and provides more intensive interventions for students with reading disabilities. Inappropriate referral to and placement in special education is often a function of identifying students as

WHEREAS #7

needing special education who have not received an adequate opportunity to learn, as well as the view that special education is the solution for all children who do not readily learn to read. Some students are not given an opportunity to learn because they move frequently or are absent often; others are present day after day but are taught with programs and practices that are not based on the science of reading. Because so few teacher preparation programs, school districts, and commercially available programs have implemented consistently what we have learned from the science of reading, far too many students struggle—feeling like they are reading failures, not realizing that they were never provided the explicit instruction they need to succeed.* The vast majority of students with low reading achievement have preventable problems: with explicit, evidence-based instruction, they would learn to read.

These evidence-based practices are fundamental and necessary not only to develop strong readers but also to discern the differences between students with

PAGES 3-4 (WHEREAS #7)

Vaughn, Fletcher (2021) Identifying and Teaching Students with Significant Reading Problems. Retrieved from: https://www.aft.org/ae/winter2020-2021/vaughn_fletcher

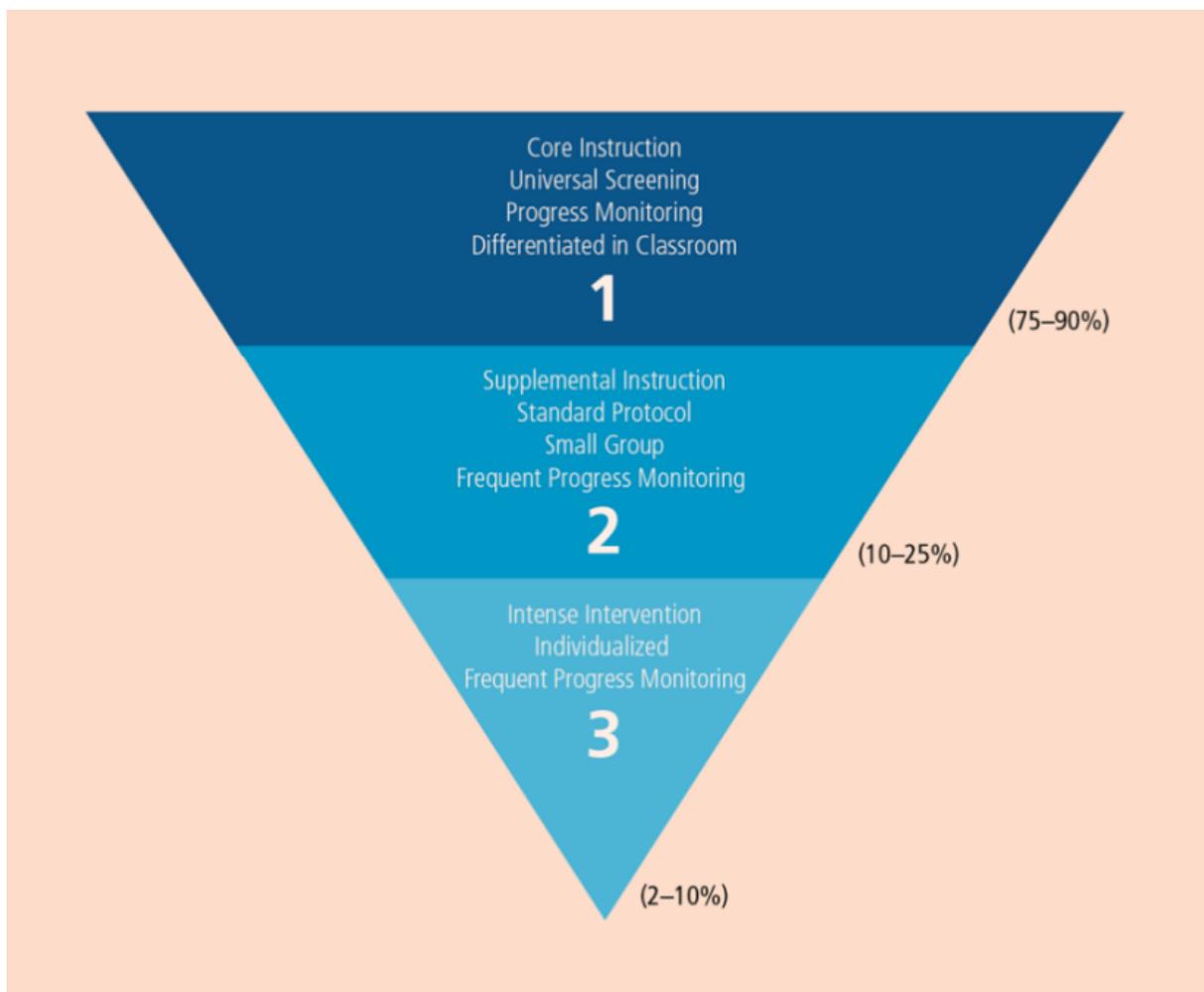
Tiers of Instruction

The Tiers of Instruction describes a model for providing increasingly customized reading interventions to students at risk for reading problems. Commonly presented as a triangle, we have tipped the triangle to emphasize the primacy of Tier 1 instruction for all students. Tiers 2 and 3 increase intensity for students who do not respond adequately to instruction. The percentages represent estimates, based on effective implementation of a multi-tiered system, of how many children are likely to be at or near grade level and only need Tier 1 (effective, evidence-based instruction for the whole class), at risk of reading difficulties and require Tier 2 (targeted, efficient supplemental instruction), or at risk of severe challenges and require Tier 3 (intensive, customized intervention, often with special education and/or dyslexia services).

WHEREAS #7

PAGE 8 (WHEREAS #7)

Vaughn, Fletcher (2021) Identifying and Teaching Students with Significant Reading Problems. Retrieved from: https://www.aft.org/ae/winter2020-2021/vaughn_fletcher



From J. M. Fletcher, G. R. Lyon, L. S. Fuchs, and M. A. Barnes, *Learning Disabilities: From Identification to Intervention*, 2nd ed. (New York: Guilford Press, 2019), 91. Copyright Guilford Press. Reprinted with permission from Guilford Press.

PAGE 9 (WHEREAS #7)

Vaughn, Fletcher (2021) Identifying and Teaching Students with Significant Reading Problems. Retrieved from: https://www.aft.org/ae/winter2020-2021/vaughn_fletcher

In this seamless, supportive system, all students are screened. Those at risk for reading difficulties receive continued evidence-based Tier 1 literacy instruction in the classroom, ongoing progress monitoring, and, if needed, a Tier 2 intervention that addresses their specific literacy problems. This Tier 2 intervention may be provided by the classroom teacher, a trained teaching assistant supervised by the classroom teacher, or an educational specialist such as a reading teacher. Tier 2 interventions are not part of a special education but rather an extension or supplement within general education. Students participate in Tier 2 intervention for a specified period of time, typically 8–12 weeks, with ongoing progress monitoring,

WHEREAS #7

approximately every two weeks. Using progress monitoring data and teachers' observations, each student's response to literacy instruction is determined (e.g., is the student reaching expected benchmarks?).

If the student's response is not sufficient to meet progress monitoring benchmarks, there are several options, including adjusting the instruction, changing the group, adjusting the group size, changing the intervention, or providing an increasingly intensive intervention (which may be longer, e.g., 30–45 minutes rather than 20 minutes, and more customized to each student's needs). If inadequate instructional response continues, the educational team or parent/guardian may determine that an eligibility evaluation for special education is in order. The advantage to this approach is that students are provided appropriate, evidence-based instruction early; for the majority of students, this rapid Tier 2 intervention is adequate for becoming strong readers. Only those students with persistent and significant reading difficulties would be referred for special education or dyslexia services.

PAGES 9-10 (WHEREAS #7)

Vaughn, Fletcher (2021) Identifying and Teaching Students with Significant Reading Problems. Retrieved from: https://www.aft.org/ae/winter2020-2021/vaughn_fletcher

WHEREAS #7

Throughout this model, screening and progress monitoring are critical. Most schools across the United States are implementing screening approaches to reading difficulties that ostensibly identify those youngsters who are at risk for reading failure. It is mandated for dyslexia in over 40 states.²⁵ Effective screeners (1) require 10 minutes or less per child, (2) demonstrate strong psychometric properties (e.g., are valid and reliable), (3) provide readily usable data that identify students as either at risk or not at risk, (4) are developmentally appropriate and can be administered two to three times per year, and (5) are easily scored. Errors in identifying which children are at risk of reading difficulties are inevitable, but we think schools should focus on reducing errors that result in *not* identifying risk (false negatives). In other words, it is better for a child who does not need extra instruction to get it than for a child who does need extra instruction to go without.

For progress monitoring, short probes involving timed word or passage reading are used so that teachers can make instructional decisions.²⁶ These types of

PAGES 11 (WHEREAS #7)

Vaughn, Fletcher (2021) Identifying and Teaching Students with Significant Reading Problems. Retrieved from: https://www.aft.org/ae/winter2020-2021/vaughn_fletcher

assessments are aimed at improving instruction and determining each student's incremental progress, recognizing that for students who are consistently making inadequate progress, additional interventions may be warranted. (For an easy-to-use review of progress monitoring tools, see [here](#).)

WHEREAS #7

Progress monitoring data can be useful in many ways. First, these data can document that students are learning the critical aspects of reading (e.g., sound-spelling patterns, vocabulary) being taught. Second, the types of responses students provide can guide instruction by highlighting each student's needs for reteaching and additional practice, while those elements that appear to be successfully learned can be monitored for maintenance. Third, data from these measures can facilitate decisions about curriculum (e.g., whether additional or different programs are needed), grouping (e.g., some students may benefit from a more advanced group; others may benefit from a mini one-on-one lesson to enhance performance), and interventions (e.g., whether to continue an intervention). Fourth, these data—especially ongoing progress monitoring data—can inform decisions about referral to and placement in special education. If special education eligibility becomes an issue, the best signal is the intractability of the child's reading problems when provided with the explicit instruction that works for most children.

PAGES 12 (WHEREAS #7)

Vaughn, Fletcher (2021) Identifying and Teaching Students with Significant Reading Problems. Retrieved from: https://www.aft.org/ae/winter2020-2021/vaughn_fletcher

WHEREAS #7

Developing a systemic approach to supporting teachers so that they can meet the needs of the range of readers in their classrooms requires ongoing screening, monitoring students' responses to instruction so that teachers can adjust instruction to meet students' needs, and fidelity of implementation to ensure adherence to treatment protocols. But seamlessly assembling all these pieces is not easy.

First, most educators, including teachers and school leaders, would benefit from ongoing *situated professional development* that builds on the knowledge they have and extends it in ways that may be readily implemented in their school setting.

What happens when you say “professional development” to most educators? Do they smile with anticipation about what they will learn and how they can implement it in their school? Typically, no. Too often, professional development is a one-day exposure to ideas (of varying quality), many of which are lost before the next day at school.

We are suggesting a distributed professional development model that provides ongoing learning opportunities as each aspect of the new system is launched. This model can follow standards like those from *Learning Forward*. Workshops on how to screen children and offer highly effective Tier 1 instruction would be followed with in-class coaching and support until the majority of educators were aligning

PAGES 13 (WHEREAS #7)

Vaughn, Fletcher (2021) Identifying and Teaching Students with Significant Reading Problems. Retrieved from: https://www.aft.org/ae/winter2020-2021/vaughn_fletcher

WHEREAS #7

their practices with data on outcomes. Then, educators would learn how to extend their Tier 1 practices with Tier 2 supplemental interventions, increasing time in literacy instruction for students who are not making sufficient progress. This would ensure that the instruction children receive in Tiers 1 and 2 is well aligned, which increases effectiveness.

Adding Tier 3 instruction requires yet more professional development, coaching, and coordination. Tier 3 more intensively focuses intervention on students' skill gaps and may be guided by more diagnostic and progress monitoring assessments. Students in Tier 3 may be candidates for special education and/or dyslexia identification and services. Because of the focus on individual skill gaps, it is not as tightly aligned with Tier 1 (regular classroom instruction), but Tier 1 remains essential for providing a comprehensive reading program. For example, a child receiving Tier 3 intervention for specific decoding skills needs Tier 1 core instruction to continue progressing in vocabulary, listening comprehension, writing across genres, and other aspects of English language arts.

Building up the seamless system takes time and a great deal of in-class support for teachers—but it is far more effective than scattershot workshops. Preventing and addressing reading difficulties is hard, but the effort pays big dividends in reducing reading difficulties. We urge schools, districts, and states to put far more effort into systemic supports (especially the professional development and coaching for teachers and administrators described here). We recommend beginning in grade 1, where the strongest evidence of the efficacy of these approaches exists, and then expanding to other grades.

PAGES 14 (WHEREAS #7)

Vaughn, Fletcher (2021) Identifying and Teaching Students with Significant Reading Problems. Retrieved from: https://www.aft.org/ae/winter2020-2021/vaughn_fletcher

Resource #17

WHEREAS #1

Although educators have long understood the importance of literacy, teaching children to read is very complex. Far too many children have trouble reading and writing. About 20 percent of elementary school students nationwide have serious problems learning to read; at least another 20 percent are at risk for not meeting grade-level expectations.¹ For children growing up in underresourced communities and attending underresourced schools, the incidence of reading failure is astronomical and completely unacceptable. Students who are African American, Hispanic, learning English, and/or from impoverished homes fall behind and stay behind in far greater proportion than students who are white and middle class. The rate of weak reading skills in these groups is 60–70 percent, according to the National Assessment of Educational Progress.²

The tragedy here is that most reading failure is unnecessary. We now know that classroom teaching itself, when it includes a range of research-based components and practices, can prevent and mitigate reading difficulty. Although home factors do influence how well and how soon students read, informed classroom instruction that targets specific language, cognitive, and reading skills beginning in kindergarten enhances success for all but a very small percentage of students with learning disabilities or severe dyslexia. Researchers now estimate that 95 percent of all children can be taught to read by the end of first grade, with future achievement constrained* only by students' reasoning and listening comprehension abilities.³

PAGE 3 (WHEREAS #1)

Moats (2020) *Teaching Reading Is Rocket Science*. Retrieved from:
<https://www.aft.org/ae/summer2020/moats>

Research-Validated Ideas for Instruction

A well-validated concept that should underpin the design of instruction is called the Simple View of Reading.⁵ It states that reading comprehension is the product of word recognition and language comprehension. Without strong skills in either domain, an individual's reading comprehension will be compromised.



WHEREAS #2

A reader's recognition of printed words must be accurate and automatic to support comprehension. The development of automatic word recognition depends on intact, proficient phoneme awareness, knowledge of sound-symbol (phoneme-grapheme) correspondences, recognition of print patterns such as recurring letter sequences and syllable spellings, and recognition of meaningful parts of words (morphemes).⁶ Young readers progress by gradually learning each of these ways that our print system represents language, and then applying what they know during ample practice with both oral and silent reading. If reading skill is developing successfully, word recognition gradually becomes so fast that it seems as if we are reading "by sight." The path to that end, however, requires knowing how print represents sounds, syllables, and meaningful word parts; for most students, developing that body of knowledge requires explicit instruction and practice over several grades.⁷ While some students seem to figure out how the print system works through incidental exposure, most do not.

Language comprehension, the other essential domain that underlies reading comprehension, depends on background knowledge, vocabulary, ability to decipher formal and complex sentence patterns, and recognition of the devices that hold a text together.⁸ Furthermore, language comprehension is facilitated by metacognitive skills such as monitoring whether reading is making sense and

choosing to act if it does not. The language comprehension factor in overall reading achievement becomes more and more important from about fourth grade onward.⁹ From preschool through high school, students gain vital exposure to a variety of text forms, language patterns, background knowledge, and vocabulary both by listening to text read aloud and by reading itself.

PAGES 4-5 (WHEREAS #2)

Moats (2020) *Teaching Reading Is Rocket Science*. Retrieved from: <https://www.aft.org/ae/summer2020/moats>

Learning to read is a complex achievement, and learning to teach reading requires extensive knowledge and skills across the components of word recognition, language comprehension, spelling, and writing. Consider what the classroom demands of the teacher. Children's interest in reading must be stimulated through regular exposure to interesting books and through discussions in which students respond to many kinds of texts. For best results, the teacher must instruct the majority of students directly, systematically, and explicitly to decipher words in print, all the while keeping in mind the ultimate purpose of reading, which is to learn, enjoy, and understand. To accommodate children's variability, the teacher must assess children and tailor lessons to individuals or groups. This includes interpreting errors, giving corrective feedback, selecting examples to illustrate concepts, explaining new ideas in several ways, and connecting word recognition instruction to meaningful reading and writing.

Some children learn language concepts and their application very easily in spite of incidental teaching, but others never learn unless they are taught in an organized, systematic, efficient way by a knowledgeable teacher using a well-designed instructional approach. Children of average ability might learn enough about reading to get by if their instruction is haphazard; with systematic research-based instruction, those students could achieve much more, such as the appreciation for

WHEREAS #7

WHEREAS #8

language structure that supports learning words from context, perceiving subtle differences in meaning, or refining language use.

PAGES 5-6 (WHEREAS #7 & #8)

Moats (2020) *Teaching Reading Is Rocket Science*. Retrieved from:
<https://www.aft.org/ae/summer2020/moats>

WHEREAS #7

A core curriculum on effective literacy instruction for pre-service and in-service teacher education would, of course, be supplemented and honed over time, but its goal is to bring continuity, consistency, quality, and comprehensiveness to the many different programs, organizations, and systems through which aspiring and current teachers receive information about how to teach reading. Given the current science of reading, this core should be divided roughly into the following four areas:



1. Knowing the basics of reading psychology and development;
2. Understanding language structure for both word recognition and language comprehension;
3. Applying best practices in all components of reading instruction; and
4. Using validated, reliable, efficient assessments to inform classroom teaching.

This excerpt offers an introduction to the first two areas. For a detailed discussion of all four areas, please see the full report.

WHEREAS #8

1. Reading Psychology and Development

Learning to read is not natural or easy for most children. Unlike spoken language, which is learned with almost any kind of contextual exposure, reading is an acquired skill. Although surrounding children with books will support reading development, and a “literature-rich environment” is highly desirable, it is not sufficient for learning to read. Neither will exposure to print ordinarily be sufficient for learning to spell, unless organized practice is provided. Thus, teachers must be

PAGE 6 (WHEREAS #7 & #8)

WHEREAS #8

PAGE 6 (WHEREAS #7 & #8)

Moats (2020) *Teaching Reading Is Rocket Science*. Retrieved from: <https://www.aft.org/ae/summer2020/moats>

They process the letters of each word in detail, although they do so very rapidly and unconsciously. Those who comprehend well accomplish letter-wise text scanning with relative ease and fluency. When word identification is fast and accurate, a reader has ample mental energy to think over the meaning of the text. Knowledge of sound-symbol mapping is crucial in developing word recognition: the ability to sound out and recognize words accounts for about 80 percent of the variance in first-grade reading comprehension and continues to be a major (albeit diminishing) factor in text comprehension as students progress through the grades (and students' background knowledge and vocabulary become ever-larger factors in comprehending academic texts).¹¹

The ability to sound out words is, in fact, a major underpinning that allows rapid recognition of words. (This recognition is so fast that some people mistakenly believe it is happening "by sight.") Before children can easily sound out or decode words, they must have at least an implicit awareness of the speech sounds that are represented by symbolic units (letters and their combinations). Children who learn to read well are sensitive to linguistic structure, recognize redundant patterns, and connect letter patterns with sounds, syllables, and meaningful word parts quickly, accurately, and unconsciously. Effective teaching of reading entails these concepts, presenting them in a sequence from simple and consistent to complex and variable. **WHEREAS #7**



The word-recognition component of reading is most closely dependent on the phonological aspect of language processing.¹² Phonological language skills include awareness of bits of speech or linguistic elements within words: consonant and vowel phonemes, spoken syllables, grammatical endings, and meaningful word parts (morphemes). Awareness of these linguistic elements in spoken

PAGE 7 (WHEREAS #7)

Moats (2020) *Teaching Reading Is Rocket Science*. Retrieved from: <https://www.aft.org/ae/summer2020/moats>

language is essential for making sense of print because our alphabetic writing system represents language at all these levels. When students cannot rapidly associate the sounds, syllables, and/or morphemes in spoken words with printed symbols, they will not be able to store words in their mental dictionaries. Conversely, a new word that is decoded accurately through phonological analysis can be pronounced and remembered, even if its meaning is not yet known.

Beginning reading instruction of necessity will focus on teaching students how to read and write words, following a systematic and logical sequence. When appropriate, the emphasis will shift to increasing reading volume. Combining research on reading, cognitive science related to the role of knowledge in thinking, and practice-based wisdom, it appears that opportunities for wide reading are best provided within a knowledge-building curriculum in which text readings are linked by a theme or topic.¹³ Ironically, while background knowledge can be gained from reading, it is also true that those who already know more about a topic make better inferences and retain meanings better than those who know little about it. Therefore, reading practice should be linked to or embedded within the study of subjects including science, history, literature, and the arts. Interpretive strategies that facilitate comprehension—including summarizing, questioning, predicting outcomes, and monitoring one's own understanding—are best used in the service of learning defined curricular content.¹⁴ Moreover, writing in response to reading is one of the best ways to enhance reading comprehension.¹⁵

WHEREAS #7

2. Language Structure

WHEREAS #8

Expert teaching of reading requires knowledge of language structure at all levels.¹⁶ Without such knowledge, teachers are not able to respond insightfully to student errors, choose examples for concepts, explain and contrast words and their parts, or judge what focus is needed in a lesson. The table below provides examples of key concepts of language structure and how they apply to instruction.

PAGE 8 (WHEREAS #7 & #8)

Moats (2020) *Teaching Reading Is Rocket Science*. Retrieved from: <https://www.aft.org/ae/summer2020/moats>

Examples of Knowledge of Language Structure and Their Application to Teaching

Selected Concepts and Skills by Domain	Ideas for Application to Instruction
<p>1. Phonetics and Phonology Understand that speech sounds are not letters, and letters do not make sounds—they represent them.</p> <p>Know that consonant and vowel phonemes can be grouped into classes with similar properties (e.g., stops, nasals, etc.).</p>	<p>Instead of asking “What sound does each letter make?,” use accurate language and focus on a specific sound, asking, “What letter(s) represent /er/ in first?”</p> <p>Help children focus on sounds by saying things like, “/m/, /n/, and /ng/ are the three ‘nosey’ sounds in English; hold your nose to feel how these sounds go through the nose.”</p>
<p>2. Phoneme Awareness Produce speech sounds accurately during reading, vocabulary, and spelling instruction.</p> <p>Identify, match, and select appropriate examples of words containing specific phonemes.</p>	<p>Say /t/ crisply, not tuh.</p> <p>In teaching awareness of the phoneme /sh/, use words including shoe, chef, and sugar. (Listen for the sound; don’t confuse the task with spelling or phonics.)</p>
<p>3. Morphology Identify morphemes (the smallest meaningful units of language) and distinguish them from syllables.</p> <p>Recognize that spellings of morphemes are often stable even when pronunciation varies in words with a common root; as a result, spelling can be a clue to meaning.</p>	<p>The word <i>interchangeable</i> has five syllables and three morphemes: <i>inter</i>, <i>change</i>, <i>able</i>.</p> <p><i>Express</i>, <i>expression</i>; <i>legal</i>, <i>legislate</i>; <i>inspire</i>, <i>inspiration</i>; <i>nature</i>, <i>natural</i>.</p>
<p>4. Orthography Understand that letters and letter combinations (graphemes) represent sounds but are not the same as sounds.</p> <p>Use a comprehensive scope and sequence that includes instruction in digraphs, blends, silent letter combinations, vowel teams, diphthongs, and the six common syllable types.</p>	<p>The phoneme /θ/ is represented by <i>f</i>, <i>ff</i> (<i>stuff</i>), <i>gh</i> (<i>tough</i>), and <i>ph</i> (<i>phone</i>).</p> <p>Explicit instruction in the written code should extend at least through grade 3 when syllables and morphemes in longer words are tackled.</p>
<p>5. Semantics Teach word meanings in relation to other word meanings.</p> <p>Adopt a routine for teaching unfamiliar word meanings to students.</p>	<p>Include antonyms, synonyms, associations, analogies, and categorical relationships on vocabulary tasks.</p> <p>Provide a student-friendly definition, many examples, and opportunities for students to say and use new words.</p>
<p>6. Syntax and Text Structure Appreciate that texts have structures that can be represented with graphic organizers (e.g., narrative and informational texts organized as compare/contrast, argumentation, description, cause/effect, etc.).</p> <p>Identify cohesive devices such as pronoun references, connecting words, word substitutions, parallel sentence structure, and paragraph organization.</p>	<p>Identify and illustrate for students the purpose of a given text and its logical structure.</p> <p>Help students identify how a text hangs together and how to follow the connections among ideas as meaning is constructed.</p>

able-to ing

PAGE 9 (WHEREAS #7 & #8)

Moats (2020) *Teaching Reading Is Rocket Science*. Retrieved from:
<https://www.aft.org/ae/summer2020/moats>

WHEREAS #7

WHEREAS #8

Experts agree that children who initially are at risk for failure are saved, in most cases, by instruction that directly teaches the specific foundational language skills on which proficient reading depends.¹⁷ Effective teachers of reading raise awareness and proficiency through every layer of language organization, including sounds, syllables, meaningful parts (morphemes), phrases, sentences, paragraphs, and various genres of text. Their teaching strategies are explicit, systematic, and engaging.¹⁸ They also balance language skill instruction

PAGE 9 (WHEREAS #7 & #8)

Moats (2020) *Teaching Reading Is Rocket Science*. Retrieved from:
<https://www.aft.org/ae/summer2020/moats>

A rich and meaningful curriculum, in which students are exposed to a variety of texts as they learn concepts in science, literature, social studies, history, the arts, and culture, should provide the context for developing reading and writing skills. Comprehension strategies should not be taught in isolation but used as necessary to enhance understanding of text assigned for content learning. Useful comprehension strategies to embed in content reading include prediction of outcomes, summarizing, clarification, questioning, and visualization; these can be modeled explicitly by the teacher and practiced overtly if students are not comprehending well or if they approach reading comprehension passively. Vocabulary is best taught with a variety of complementary methods, both direct and incidental, designed to explore the relationships among words and the relationships among word structure, origin, and meaning. Of course, children also benefit from access to full libraries and incentives to read independently.

The fact that teachers need better preparation, professional development, and resources to carry out deliberate instruction in reading, spelling, and writing should prompt action rather than criticism. It should highlight the chronic gap between what teachers need and what they have been given. Just about all children can be taught to read and deserve no less from their teachers. Teachers, in turn, deserve no less than the knowledge, skills, and supported practice that will enable their teaching to succeed. There is no more important challenge for education to undertake. WHEREAS #8

PAGE 10 (WHEREAS #8)

Moats (2020) *Teaching Reading Is Rocket Science*. Retrieved from: <https://www.aft.org/ae/summer2020/moats>

Scope of the Problem

Educational risk factors are associated with juvenile and adult offending, justice system involvement, and recidivism (Cottle, Lee, and Heilbrun, 2001; Cuellar and Markowitz, 2015; Moffitt et al., 1981; Moretti, 2005; Pettit and Western, 2004; Wang, Blomberg, and Li, 2005). These risk factors include low academic achievement, academic failure, negative attitudes toward school, low bonding to school, low school attachment and commitment to school, frequent school transitions, low academic aspirations, suspensions and expulsions, truancy and absenteeism, inadequate school climate, and school dropout (Development Services Group, 2015a).

WHEREAS #5

¹ H. R. 2362, 89th Cong., 1st Sess., Public Law 89-10.

Suggested Reference: Development Services Group, Inc. 2019. "Education for Youth Under Formal Supervision of the Juvenile Justice System." Literature review. Washington, D.C.: Office of Juvenile Justice and Delinquency Prevention.
<https://www.ojjdp.gov/mpg/litreviews/Education-for-Youth-in-the-Juvenile-Justice-System.pdf>

Prepared by Development Services Group, Inc., under cooperative agreement number 2013-JF-FX-K002. Points of view or opinions expressed in this document are those of the author and do not necessarily represent the official position or policies of OJJDP or the U.S. Department of Justice.

PAGE 1 (WHEREAS #5)

(2019) Education for Youth Under Formal Supervision of the Juvenile Justice System.

OJJDP. Retrieved from:

https://ojjdp.ojp.gov/model-programs-guide/literature-reviews/education_for_youth_under_formal_supervision_of_the_juvenile_justice_system.pdf

WHEREAS #5

While some researchers have found that involvement in the juvenile justice system can also serve as a risk factor resulting in poor educational outcomes (Aizer and Doyle, 2015; Hirschfield, 2009; Kirk and Sampson, 2013; Widdowson, Siennick, and Hay, 2016), others have posited that the causal relationship is not clear (Moretti, 2005; Witte, 1997).

Education-Related Characteristics of Youth in the Juvenile Justice System

Most of the research on the relationship between academic problems and delinquency has been implemented with confined and detained populations. The research on youth involved with the juvenile justice system but who are not incarcerated is much more limited.

Low IQ and Academic Achievement. Research suggests that those in the juvenile justice system exhibit intellectual deficiencies and low academic achievement at a greater proportion than their non-system-involved peers (Foley, 2001; Krezmien et al., 2013). Almost half (48 percent) of youth responding to a national survey of more than 7,000 in custody during 2003 indicated that they were achieving below their grade level, compared with 28 percent in the general population (Sedlak and Bruce, 2010; U.S. Census Bureau, 2005; Lugaila, 2003). Specific challenges include lower scores on standardized achievement tests (Krezmien, Mulcahy, and Leone, 2008; Zamora, 2005); lower levels of language and literacy skills (Harris et al., 2009; Krezmien et al., 2013; Wilson, Zablocki, and Bartolotta, 2007); lower math scores (Wilson, Zablocki, and Bartolotta, 2007); and lower GPAs and overall grades (Finn, Stott, and Zarichny, 1988; Wang et al., 2005). A small study of youth who had brief contact with the Maryland juvenile justice system but were not incarcerated found that more than 60 percent demonstrated problems in academic performance and school functioning (Brown et al., 2008).

Academic measures can also predict recidivism among system-involved youth. In their study of 12- to 18-year-old boys in a Nebraska correctional facility, Archwamety and Katsiyannis (2000) found that boys who were in the remedial education group were twice as likely to recidivate or violate their parole than boys who were not in the remedial group. In their study of more than 4,000 juveniles released from secure facilities in Florida, Blomberg, Bales, and Piquero (2012) found that youth with above average academic achievement while securely confined were more likely to return to school after release, and that youth with above average attendance in public school were less likely to be rearrested. Additionally, a meta-analysis of 23 studies examining over 15,000 juveniles found that lower standardized achievement scores, lower full-scale IQ scores, and lower verbal IQ scores were associated with increased risk of recidivism (Cottle, Lee, and Heilbrun, 2001).

Special Education Needs². In their analysis of data from a national survey completed by 38 heads of state departments responsible for youth in long-term secure residential facilities, Quinn et al. (2005) found that during the 2000–2001 school year, one third of youth in secure juvenile facilities received special education services, compared with less than 9 percent of students nationally. Prevalence of disabilities varied greatly across juvenile residential facilities, ranging from 9 percent to as high as 77 percent. These prevalence rates included all disabling conditions such as emotional disturbances, specific learning disabilities, and multiple disabilities.

PAGE 2 (WHEREAS #5)

(2019) Education for Youth Under Formal Supervision of the Juvenile Justice System.

OJJDP. Retrieved from:

https://ojjdp.ojp.gov/model-programs-guide/literature-reviews/education_for_youth_under_formal_supervision_of_the_juvenile_justice_system.pdf

Resource #19

and delinquent coordinators at the local and State levels.

WHEREAS #5

Recognizing the Challenges and Finding Opportunities

The law requires that juvenile justice facilities must provide education to all school-age students, and these facilities often do so despite challenges that would baffle most high school administrators and teachers. Many students arrive at their assigned facility well in advance of their prior school records, which would help support staff and teachers plan the most effective educational program for the newly placed youth. A lack of records means that immediate screening procedures are essential to help staff identify students' physical, academic, and emotional needs. Problems may be relatively easy to address, such as getting students glasses if vision screening determines need (Sparks & Harwin, 2018), ensuring that students who have been consistently truant now attend class regularly, or providing meals routinely to students who have experienced food insecurity.

WHEREAS #5

Other conditions present far greater challenges. Although a wide range of abilities often are represented in any cohort in a juvenile justice facility, a substantial number of the students most likely will perform below expectations for their age in key content areas such as reading (Davis et al., 2014). Gaps in skills at the basic levels of phonological processing, oral reading fluency skills, and low levels of comprehension are not uncommon. Although some students may have mastered these reading basics, they may lack proficiency for critical reading, have low levels of the academic vocabulary needed for content-area reading, and lack the general or content-specific background knowledge that helps them make sense of what they read and what teachers teach (Houchins, Gagnon, Lane, Lambert, & McCray, 2018).

Many of these students have been enrolled in intervention classes, often since the early grades, but frequently the interventions have been only minimally effective (Denton et al., 2013; Houchins et al., 2018; National High School Center, National Center on Response to Intervention, & Center on Instruction, 2010; Wexler, Pyle, Flower, Williams, & Cole, 2014). Further, removal from the mainstream of classroom work (Tier 1 instruction in a multi-tiered system of support) may have communicated to students who are struggling that they are different from their peers, somehow "on the fringe" of mainstream school life because of their lagging skills. Such feelings can lower students' sense of themselves as capable learners; decrease their efforts to expend cognitive energy to master challenging skills; and lead to behaviors that result in suspensions, expulsion from school, and often—sadly—juvenile detention. In short, students' goals and beliefs about the value of reading have diminished to the point where they have given up trying to improve their reading skills or read to learn in content-area instruction.

Using This Guide

This guide contains four recommendations, each of which is explained and then followed by action-oriented strategies for implementation.

- **Recommendation 1:** Ensure that juvenile justice facilities have the infrastructure necessary to provide students and teachers with the academic and social supports needed for their success.
- **Recommendation 2:** Use data for decision making in a comprehensive approach that assesses students' needs on entry and as they progress through the program.
- **Recommendation 3:** Provide a comprehensive literacy program that seeks to meet the needs of all students in the juvenile justice facility.
- **Recommendation 4:** Provide intensive interventions to

PAGE 3 (WHEREAS #5)

(2020) *Meeting the Needs of the Students in Juvenile Justice Facilities* (2nd ed.) NDTAC.

Page 3. Retrieved from:

<https://neglected-delinquent.ed.gov/sites/default/files/Adolescent-LitGuide-508.pdf>

Resource #20

WHEREAS #5

The literature has long registered elevated, compared to the general population, frequencies of learning disabilities (LD) amid law offenders (Critchley & Critchley, 1978; Ross, 1977). More recent literature highlights these elevations among both delinquent juveniles (Grigorenko, 2006) and law-offending adults (Harlow, 2003); yet a methodical evaluation of the literature, careful appraisal of these frequencies, and examination of their correlates and causes have been lacking (Rankin, 2005). Furthermore, the studies that have addressed these questions have returned widely different incidence rates of LD among law offenders (Alm &

Elena L. Grigorenko, Yale Child Study Center, 230 South Frontage Road, New Haven, CT 06520-7900, USA.
Elena.grigorenko@yale.edu.

Declaration of Conflicting Interests

The author(s) declared no potential conflicts of interest with respect to the research, authorship, and/or publication of this article.

PAGE 1 (WHEREAS #5)

DISCUSSION

WHEREAS #5

Based on the literature (Bullis & Yovanoff, 2006; Grigorenko, 2006; Larson & Turner, 2002; Morris & Morris, 2006; Quinn, Rutherford, Leone, Osher, & Poirier, 2005) and our previous work (Hart et al., 2012; Macomber et al., 2010), we estimate that at least 10% to 15% of juveniles in detention (i.e., at least twice the rate in the general population) have various forms of severe LD, often comorbid with other developmental and neuropsychiatric conditions, particularly attention-deficit/hyperactivity disorder (ADHD; Connor et al., 2012). Yet these estimations have not been substantiated in large-scale studies. Here we attempt to make a step toward obtaining such estimates.

PAGE 9 (WHEREAS #5)

(2015) *Academic Achievement Among Juvenile Detainees*. Dept. of Health/Human Services.

Retrieved from:

<https://www.ncbi.nlm.nih.gov/pmc/articles/PMC5064284/pdf/nihms-821513.pdf>

Resource #21

assessed yearly from 1st to 12th grade on measures of reading and IQ. Statistical analysis employed longitudinal models based on growth curves and multiple groups. As early as first grade, compared with typical readers, dyslexic readers had lower reading scores and verbal IQ, and their trajectories over time never converge with those of typical readers. These data demonstrate that such differences are not so much a function of increasing disparities over time but instead because of differences already present in first grade between typical and dyslexic readers. The achievement gap between typical and dyslexic readers is evident as early as first grade, and this gap persists into adolescence. These findings provide strong evidence and impetus for early identification of and intervention for young children at risk for dyslexia. Implementing effective reading programs as early as kindergarten or even preschool offers the potential to close the achievement gap.

WHEREAS #5

PAGE 1 (WHEREAS #3)

(2015) *Achievement Gap in Reading Is Present as Early as First Grade and Persists through Adolescence*. Retrieved from:

<https://www.dyslexia.yale.edu/research-science/achievement-gap-in-reading-is-present-as-early-as-first-grade-and-persists-through-adolescence/>