HB

64

<TARGET><BILL>HB 64</BILL><SUBJECT>HB
64</SUBJECT><COMM>SEDC30</COMM></TARGET>

Alaska State Legislature

Senator Gary Stevens, Chair
Session: Capital Room 429
Juneau, AK 99801
(907) 465-4925

Senator Tom Begich
Senator John Coghill
Senator Cathy Giessel
Senator Shelley Hughes

Senate Education Committee

House Bill 64 – Task Force on Reading Proficiency & Dyslexia

Explanation of Changes – Version J to N

SUMMARY OF SUBSTANTIVE CHANGES

1. The overall bill was made shorter and more succinct, starting with its title.
2. The size of the task force was reduced for practical purposes and to establish the TF as being led by the Legislature.
3. The TF will have one final report over the course of about one year, as opposed to both an interim report and a final report over the course of about two years.

DETAIL OF CHANGES FROM VERSION J: (words added and ~~struck~~):

A. Page 1, Lines 1-2:
The name of the Task Force (TF) was changed from "the Task Force on Reading Proficiency and ~~Reading Instruction for All Students and On the Effects of~~ Dyslexia ~~on Some Students~~" to simply "the Legislative Task Force on Reading Proficiency and Dyslexia."

B. Page 1, Line 7:
The number of Alaskan students reported as failing to meet Alaska's English Language Arts standards was updated to the latest figure of approximately ~~47,000~~ 43,300.

C. Page 1, Lines 11-12:
The statement "results on student assessments ~~demonstrate that the state can improve~~ reading instruction ~~for students~~" was edited to read "results on student assessments indicate reading instruction and reading proficiency for students in the state should be improved;"

D. Page 2, Line 5, INSERT:
A new subsection (5) was added to read: "parents and other caregivers are responsible for ensuring that their children learn to read through the public school system or other means of instruction;"

E. Page 2, Lines 5-9:
(6) the residents of this state also hold the legislature, the governor, and the state Board of Education and Early Development accountable for student reading proficiency outcomes ~~because the legislature, the governor, and the state Board of Education and Early Development are responsible for developing and implementing strongly justified education budget proposals~~ and for leading reforms of the state's public education system.

F. Page 2, Lines 16-31, through Page 3, Line 12:
The "purpose" and duties of the TF were consolidated and rearranged to be more concise and are otherwise kept intact from version J of the bill.

G. Page 3, Lines 13-18:
The TF will have one final report over the course of about one year, as opposed to both an interim report and a final report over the course of about two years. The deadline for the report was updated to March 29, 2019.

H. Page 3, Lines 19-31 through Page 4, Lines 1-15:
The task force was reduced to 12 members (from 15 members), detailed as follows:
Six legislators (3 Senate / 3 House)
One K-3 teacher
One School Board Representative
One Administrator (Superintendent or Principal)
One Non-Profit Representative
One Parent
One Student Leader

These changes reflect removing the Commissioner of Education & Early Development, the University of Alaska, and two Non-Profits from the TF. A Student Leader representative was added.

I. Page 4, Lines 16-28:
These subsections were redrafted as follows:
1. (Line 16) to establish this "legislative task force" as being led by the legislature, and provide for the chair being a legislator who is jointly appointed by the house speaker and the senate president. Version J called for a chair being elected from amongst the TF's 15 members.
2. (Lines 17-18) Language specifying the frequency of TF meetings, as well as referring to member(s) potential conflicts of interest and calling on other expert consultants (to presumably settle related disputes or offer alternative testimony on a subject) was struck from the bill.
3. (Lines 25-26) The new version specifies the staff member of the chair of the TF as being the administrative support for the TF, as opposed to version J which identified potentially multiple staff of the "legislative members" fulfilling that role.
4. (Lines 27-28) The new version further clarifies that members are not entitled to per diem or travel expenses, and provides that the TF "may," as opposed to "shall," meet telephonically.

J. Page 4, Line 29:
The sunset of the TF was updated to June 30, 2019.

30-LS0345\N
Glover
2/2/18

SENATE CS FOR CS FOR HOUSE BILL NO. 64(EDC)

IN THE LEGISLATURE OF THE STATE OF ALASKA

THIRTIETH LEGISLATURE - SECOND SESSION

BY THE SENATE EDUCATION COMMITTEE

Offered:
Referred:

Sponsor(s): REPRESENTATIVES DRUMMOND, Gara, Talerico, Spohnholz, Birch, Tarr, Josephson

A BILL

FOR AN ACT ENTITLED

"An Act relating to the establishment of the Legislative Task Force on Reading Proficiency and Dyslexia."

BE IT ENACTED BY THE LEGISLATURE OF THE STATE OF ALASKA:

*** Section 1.** The uncodified law of the State of Alaska is amended by adding a new section to read:

LEGISLATIVE FINDINGS. The legislature finds that

(1) approximately 43,300 students in the state do not meet Alaska English Language Arts standards as indicated by the Alaska Measures of Progress test, and reading proficiency scores on the National Assessment of Educational Progress for students in the state were stagnant from 2003 through 2015;

(2) results of student assessments indicate that reading instruction and reading proficiency for students in the state should be improved;

(3) dyslexia, the most common specific learning disability, affects between three and 17 percent of the student population and accounts for approximately 80 percent of

all specific learning disabilities;

(4) the scientific consensus is that, when learning to read, typical and atypical learners have overlapping instructional needs, including the need for highly knowledgeable and skilled reading teachers to improve reading proficiency outcomes;

(5) parents and other caregivers are responsible for ensuring that their children learn to read through the public school system or other means of instruction; and

(6) the residents of this state also hold the legislature, the governor, and the state Board of Education and Early Development accountable for student reading proficiency outcomes and for leading reforms of the state's public education system.

*** Sec. 2.** The uncodified law of the State of Alaska is amended by adding a new section to read:

LEGISLATIVE TASK FORCE ON READING PROFICIENCY AND DYSLEXIA. (a) The Legislative Task Force on Reading Proficiency and Dyslexia is established as a joint task force of the Alaska State Legislature.

(b) The task force established under (a) of this section shall

(1) examine

(A) the effects of current state statutes and regulations on reading proficiency outcomes;

(B) the effects of dyslexia on reading proficiency outcomes in the state and in other jurisdictions;

(C) dyslexia education instructional practices and laws in other jurisdictions;

(D) educational reforms related to reading that have been implemented in the state and the reasons for the success or failure of those reforms at the local level;

(2) evaluate and make recommendations regarding

(A) reading instructional practices for all public school students in the state;

(B) the diagnosis, treatment, and education of children affected by dyslexia;

(C) methods to improve reading proficiency and reading instruction for all public school students in the state;

(D) possible legislation or other policy recommendations to improve reading proficiency outcomes;

(E) methods to mitigate the effects of dyslexia on reading proficiency, including

(i) early screening, early identification, and early intervention for students in preschool through grade three;

(ii) screening, identification, and intervention for students in grades four through 12;

(iii) training all relevant educational staff in the use of evidence-based screening and identification instruments; and

(3) identify evidence-based, multi-sensory, direct, explicit, structured, and sequential approaches to instructing students affected by dyslexia.

(c) The task force shall, not later than March 29, 2019, submit a final report summarizing the findings and recommendations of the task force to the governor, the state Board of Education and Early Development, and the senate secretary and chief clerk of the house of representatives and notify the legislature that the report is available.

(d) The task force consists of 12 members as follows:

(1) three members of the house of representatives appointed by the speaker of the house of representatives, including at least one member of the minority organizational caucus;

(2) three members of the senate appointed by the president of the senate, including at least one member of the minority organizational caucus; and

(3) six members of the public to be appointed jointly by the speaker of the house of representatives and the president of the senate as follows:

(A) one member who is an active or retired teacher in kindergarten through grade three with significant experience teaching reading to students developing typically and atypically in the state;

(B) one member representing the Association of Alaska School Boards;

(C) one member representing either the Alaska Council of School Administrators or the Alaska Association of Elementary School Principals who is

knowledgeable about reading instruction and dyslexia;

(D) one member representing a nonprofit organization with a mission related to reading and education;

(E) one member who is a parent of a child with a reading disability; and

(F) one member who is a student enrolled in good standing in a public high school in the state who demonstrates leadership and has an interest in promoting reading proficiency.

(e) The speaker of the house of representatives and the president of the senate shall jointly appoint the chair of the task force from among the legislative members of the task force. A majority of the task force constitutes a quorum. The task force meets at the call of the chair and may meet telephonically.

(f) A vacancy on the task force shall be filled in the same manner as the original selection or appointment.

(g) The task force may request data and other information from the Department of Education and Early Development, school districts, and other state agencies.

(h) The staff of the legislator who chairs the task force shall provide administrative and other support to the task force.

(i) Members of the task force serve without compensation and are not entitled to per diem or travel expenses.

(j) The task force expires on June 30, 2019.

(k) In this section,

(1) "dyslexia" means a learning disability that is neurobiological in origin and is characterized by difficulties with accurate or fluent word recognition and by poor spelling and decoding abilities;

(2) "relevant educational staff" includes school psychologists, special education teachers, other teachers, principals, and superintendents; and

(3) "task force" means the Legislative Task Force on Reading Proficiency and Dyslexia.

Fiscal Note

State of Alaska
2017 Legislative Session

Bill Version:	CSHB 64(EDC)
Fiscal Note Number:	1
(H) Publish Date:	3/10/2017

Identifier: HB64-LEG-COU-02-23-17
Title: READING PROFICIENCY TASK FORCE; DYSLEXIA
Sponsor: DRUMMOND
Requester: HOUSE EDUCATION

Department: Legislature
Appropriation: Legislative Council
Allocation: Council and Subcommittees
OMB Component Number: 783

Expenditures/Revenues

Note: Amounts do not include inflation unless otherwise noted below. (Thousands of Dollars)

	FY2018 Appropriation Requested	Included in Governor's FY2018 Request	Out-Year Cost Estimates				
OPERATING EXPENDITURES	**FY 2018**	**FY 2018**	**FY 2019**	**FY 2020**	**FY 2021**	**FY 2022**	**FY 2023**
Personal Services							
Travel							
Services							
Commodities							
Capital Outlay							
Grants & Benefits							
Miscellaneous							
Total Operating	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**

Fund Source (Operating Only)

None							
Total	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**

Positions

Full-time							
Part-time							
Temporary							

Change in Revenues

None							
Total	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**

Estimated SUPPLEMENTAL (FY2017) cost: 0.0 *(separate supplemental appropriation required)*
(discuss reasons and fund source(s) in analysis section)

Estimated CAPITAL (FY2018) cost: 0.0 *(separate capital appropriation required)*
(discuss reasons and fund source(s) in analysis section)

ASSOCIATED REGULATIONS

Does the bill direct, or will the bill result in, regulation changes adopted by your agency?
If yes, by what date are the regulations to be adopted, amended or repealed?

Why this fiscal note differs from previous version:

Initial version. Zero Note.

Prepared By:	Jessica Geary, Finance Manager	Phone:	(907)465-6626
Division:	Legislative Affairs Agency	Date:	02/23/2017 02:00 PM
Approved By:	Pam Varni, Executive Director	Date:	02/23/17
Agency:	Legislative Affairs Agency		

FISCAL NOTE ANALYSIS

STATE OF ALASKA
2017 LEGISLATIVE SESSION

Analysis

HB64 establishes a Task Force on Reading Proficiency and Reading Instruction for All Students and on the Effects of Dyslexia on Some Students within the Legislative Branch.

It consists of 15 members: three members of the House of Representatives appointed by the Speaker of the House, including at least one member of the minority organizational caucus; three members of the Senate appointed by the Senate President, including at least one member of the minority organizational caucus; the Commissioner of Education and Early Development, or the commissioner's designee, who serves as a nonvoting member; and eight members of the public to be appointed jointly by the Speaker of the House of Representatives and the President of the Senate as follows: one member who is an active or retired teacher in kindergarten through grade three with significant experience teaching reading to students developing typically and atypically in the state; one member representing the Alaska Council of School Administrators who is knowledgeable about reading instruction and dyslexia; one member representing the Alaska Association of Elementary School Principals; one member representing the University of Alaska who, for both typically and atypically developing students, is a highly knowledgeable and skilled teacher of reading and demonstrates the ability to pass this knowledge and skill on to student teachers, or if a candidate meeting the criteria in this subparagraph is not available, one member who is a nationally recognized expert in teaching reading to both typically and atypically developing students who demonstrates the ability to pass this knowledge and skill on to student teachers; and four members representing nonprofit organizations that are focused on issues related to reading and education, including one member who is a parent of a child with a reading disability.

The members serve without compensation and may not receive travel and per diem expenses. The committee shall meet during and between legislative sessions telephonically. Because no travel or per diem expenses are authorized, this legislation has zero fiscal impact on the Legislature.

(Revised 8/12/16 OMB/LFD)

Subject: House Bill 64 for reading proficiency
Dear Representative Drummond and House Education Committee:
Please support House Bill 64 to create a legislative task force for improving reading proficiency statewide. As you know, students in Alaska have scored low in English reading and writing for a long time. Now is the time for the Legislature to take the lead for important changes needed in reading instruction statewide.

I am retired now, but have worked in the Anchorage School District (Special Education and Title 1 School) and volunteered for over 30 years.
Working one on one with kids that have a hard time with reading, which also affect learning or working on academics, there was never enough time in the day to reach each child or the right amount of staff.
It is so very important to keep working with our children, closely when it comes to reading. So many children are just pushed ahead and lost in the system.
Our children want to learn, we just need the time to work with them.
Please look into how we can get our children ahead in reading. It not only benefits our children, but the state of Alaska.
Our children are the future, lets not forget that.
Thank you,

Judy Basler
judybug258@aol.com

26 January 2017

Senator Hughes
Senate Education Committee
Capitol Building
Juneau, Alaska 99801

Representative Drummond
House Education Committee
Capitol Building
Juneau, Alaska 99801
Re: Support fro SB 27 and HB 64: a reading Proficiency Task Force

I am writing in support of SB 27/HB 64, requesting the establishment of a task force on reading proficiency and instruction and the effects of dyslexia on some students.

It is vitally important for dyslexia to be recognized as the extremely prevalent (up to 20%of students) condition that it is. The statistics for the number of students who score proficient or above proficient on standardized tests are among the lowest in the nation. It is no mystery that the foundation of a child's education is laid in the primary years when it is crucial to identify struggling readers and their specific difficulties. We have all heard the saying that from kindergarten to third grade children learn to read and

from then on they read to learn.

When a child's dyslexia is not identified, and tragically, not addressed that child goes on to a painful

school experience. He not only struggles to read, but to do math, and science and social studies. But he often suffers socially as well as his classmates are surely aware of his poor reading skills and poor grades.

By middle school and high school they are unable to take part in honors classes despite their strong intellect because it takes so long to read (and reading is so unpleasant), because each writing assignment is tantamount to torture and because they may have poor organizational skills. In missing out on those classes they have lost a wonderful learning opportunity and peer group. Similarly the group has lost out on the presence of a person with an awesome, creative dyslexic brain with an incredible capacity to think outside the box. That child may suffer silently or act out in destructive ways.

Currently, children with dyslexia fall through the cracks in our system. In families with resources parents find tutors and programs to help, but that's the few and that's not fair in a public education. We know where a weak link exists in our educational system and it's in the identification of dyslexia in our students, especially when they are young when we can do the most to help them. Please recognize dyslexia and establish this task force. Thank you to Governor Walker who proclaimed October of 2015 and 2016 Dyslexia Awareness Month in the State of Alaska.

Sincerely,

Nancy Simpson Martin

IDA Alaska

State of Connecticut
GENERAL ASSEMBLY

Commission on Children

Connecticut's Comprehensive Reading Plan

The Cost of Reading Failure

- Students who cannot read by Grade 3 are four times more likely to drop out of school than those who can read.
- Two-thirds of students who cannot read proficiently by the end of Grade 4 will end up in jail or on welfare.
- 43% of those with the lowest literacy skills live in poverty and 70% have no job.
- More than $60 billion is lost annually in American business productivity due to employees' lack of basic reading skills.
- Connecticut has one of the worst reading achievement gaps in the United States.

Connecticut's Comprehensive Reading Plan

The achievement gap in reading in Connecticut is a problem that can be solved. Research shows that reading is teachable to 95% of our children. A plan needed to be developed to assure reading success for all young students.

- The Black and Puerto Rican Caucus, in partnership with the State Department of Education, the Commission on Children, The University of Connecticut, Literacy How, and the Grossman Family Foundation, sought to pilot, learn from, and grow an intentional set of literacy reforms in order to narrow the literacy achievement gap.
- **Connecticut's K-3 Reading Model, which differs from typical reading reform efforts** in its comprehensiveness and alignment with scientific reading research, includes:
  - A school-wide reading improvement plan;
  - School literacy leadership team;
  - A comprehensive literacy assessment system;
  - High-quality classroom instruction for all students;
  - Evidence-based, intensive interventions for students reading below grade level;
  - Embedded coaching and ongoing professional development;
  - Aligned summer school intervention support; and
  - A parent engagement program.

- Connecticut's K-3 Reading Model focuses resources on the 50% of children who are not reading at the state's proficiency levels, including students of color and/or lower economic status who are disproportionately impacted. The state legislature and Gov. Dannel Malloy included the Reading Model in the state's comprehensive reading reform legislation of 2012, at urging of the Black & Puerto Rican Caucus.

- **Connecticut's K-3 Reading Model was created through the combination of the findings and lessons from two critical piloting phases.**

- **Phase One: Led by Literacy How**
  - Use of alternative and proven instruments to assess children's reading level
  - Building leadership capacity of principals in the oversight of reading excellence
  - Building additional skills and knowledge in the science of reading for all teachers
  - External mentors for teachers and classrooms
  - Parental engagement in how to participate in school-home reading partnerships

- **Phase Two: Led by University of Connecticut's Neag School of Education, in collaboration with Literacy How and HILL for Literacy**
  - Created individualized reading intervention plans for each student not meeting proficiency in targeted schools
  - Piloted a model in select elementary schools in Hartford, New Haven, East Hartford, and Windham.
  - Informed an expansion of the model to 25 schools across the state

- **A reading forum, hosted by the legislature's Black & Puerto Rican Caucus and the Commission on Children,** was held in Hartford on April 21, 2015, focusing on the statewide reading plan and pilot outcome data. The forum demonstrated that children in schools with Connecticut's K-3 Reading Model have shown substantial growth in early literacy skills.

The Results

- **The results have been stunning.** In addition to showing greater growth in early literacy skills, participating children in the pilot schools have met important literacy benchmarks earlier than their peers.

- **The effects are cumulative over time**; children who participate for longer periods (over multiple years) demonstrate greater literacy achievement than those who participate for shorter periods.

- **In Phase One, phonemic awareness (an essential early literacy skill) showed a 35% improvement** over the baseline scores in 1st and 2nd grade and 18% over baseline in 3rd grade. Word reading improved 19% over baseline in 1st grade and 18% over baseline in 2nd grade.

- **Also in Phase One, the ability to read grade-level text increased** 14% over baseline in 1st grade and 10% over baseline in 2nd grade.

A Sampling of Success

- **East Hartford**: One school began with 36 kindergarten students at or above grade-level literacy, nearly doubling to 69 students after the interventions. In another school, the STAR Early Literacy Scaled Score improved from only 25% of the students at or above benchmark in the fall to 75% by the winter.

- **Waterbury**: Reading scores improved 19 percentage points within two years.

- **Naugatuck:** 16% improvement in the number of students meeting grade level after just one season of intervention.

- **The pass rate of pre-service teachers of the Foundations of Reading Test has grown from 65% in 2009-2010 to 81% in 2013-2014, demonstrating changes in higher education's teaching and training of pre-service teachers.** The training of pre-service teachers in the science of reading instruction is taking root in higher education. Since 2009, all prospective Pre-K through Grade 6 teachers in Connecticut have had to pass this test which evaluates one's knowledge of research-based reading instruction.

View PowerPoint presentations and other documents from the forum at: www.cga.ct.gov/coc/reading_forum_2015.htm.

January 27, 2017

Representative Drummond
House Education Committee
Capital Building
Juneau, AK 99801

Senator Hughes
Senate Education Committee
Capital Building
Juneau, AK 99801

RE: Support for SB 27 and HB 64 for a Reading Proficiency Task Force

Dear Senator Hughes and Representative Drummond,

We have an extreme dichotomy of what we know about teaching reading and what we do. We know how students develop reading skills. We know how to teach more than 90% of our students to read. Unfortunately, the National Assessment of Educational Progress consistently finds that we choose to teach only 30% of our Alaska kids to read proficiently. Go online. Look at the history of the reading outcomes we Alaskans choose for our kids.

I am a teacher currently taking classes in reading science because my degree at Ohio State did not prepare me to teach reading adequately. The philosophy of Ohio State was "love books, love writing, immerse students in the love of literature. Reading will come to them." It doesn't. As our numbers attest, reading will come to 30% of the students.

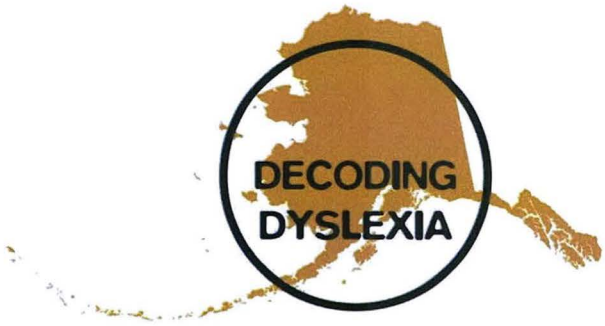
When I was getting this degree, we all kept waiting for when we'd be taught how to teach reading. We agreed about the importance of appreciating good books, but all of us future teachers wanted more. At one point, a head professor got all riled up and loudly dismissed the Ohio law that required the teaching of reading science. None of us students knew this law. The head professor waved a copy of the phonetics page of a dictionary passionately declaring, "This is all you need to teach that way."

Now, I understand that this professor thought she was defending us from the science of reading. That professor didn't know that students can dig deeper into literature when the school system purposely builds a strong reading foundation. For example, when we directly teach that the suffix -ed represents an idea that happens to have three sounds, we're showing students that written English is structured around ideas. When students discuss who is the antagonist in a second grade read aloud, they are discovering that big ideas are all around if they just practice digging deeper.

How tragic that this professor stood in the way of teachers wanting to know more about teaching reading. Don't follow her lead.

Sincerely,

Serena Elftman Mollenkopf



Dear Representative Drummond and House Education Committee:

Please support House Bill 64 to create a legislative task force for improving reading proficiency statewide.

As you know, students in Alaska have scored low in English reading and writing for a long time. The most recent data available, the results from the AMP testing in 2015, shows that 80,000 schoolchildren in Alaska are behind in reading and approximately 61% of students did not meet state standards. How can we continue to fail to meet the needs of so many Alaskan schoolchildren? Moreover, our state has no plans to raise our students into the ranks of academic proficiency.

The Legislature can take the lead for important changes needed in reading instruction statewide. Enacting a Reading and Dyslexia Task Force will shed light on the best practices of reading instruction. A nationally recognized expert can provide independent, third party expertise on sustainable and scalable curriculum. Additionally, the Task Force can lay the tracks for the implementation of improved reading instruction and recommend guidelines for compliance.

It is estimated 20% - one in five - people have dyslexia. The term dyslexia appears nowhere in our state's regulations and has only recently "existed". Appropriate intervention needs to take place to provide remediation.

Improving literacy for all children will improve academic levels. Isn't that the goal of education?

We urgently ask your support and pass this bill for Reading for All Students and the Effects of Dyslexia on Some Students Task Force.

Thank you for your consideration,

Mary Claire Kretzschmar
Co-Chair, Decoding Dyslexia AK

COMMENTS ON DYSLEXIA LEGISLATION
January 26, 2017

David A. Kilpatrick, PhD (Syracuse University, 1994)
Associate Professor of Psychology
State University of New York, College at Cortland
New York State Certified School Psychologist
Author of *Essentials of Assessing, Preventing, and Correcting Reading Difficulties* (Wiley, 2015)

I have conducted over 1,000 evaluations of students with reading difficulties in 28 years with the East Syracuse-Minoa Central School District. Also, I have taught upper-level college courses in learning disabilities and educational psychology since 1994.

Having evaluated hundreds of students from who displayed significant difficulties in reading, I have had very direct experience with the issues raised by the Alaska bill that is now before the legislature. My field of school psychology typically does not provide adequate graduate exposure to the vast and heavily grant-funded area of reading research. I was not exposed to this scientific endeavor until 1997, when I had already been a practicing school psychologist for nine years. Fortunately, I had access to the research journals because I was an adjunct professor for the State University of New York at that time. Typically, scientific journals are only accessible by those working at or attending a university. I spent the next 18 years with one foot in public education and another in a university and research context. The gap between the two could not have been wider.

Multiple sources such as the American Federation of Teachers, the Journal of Learning Disabilities, the Society for Scientific Study Reading, and the federal government, have all highlighted the substantial gap between scientific research on reading and the actual classroom practice in our schools. I found that there were not many useful and reliable resources available that communicated the best available research to the teachers, administrators, and school psychologists who needed it the most. This situation prompted me to write *Essentials of Assessing, Preventing, and Overcoming Reading Disabilities*, which is functionally reading research's "greatest hits" in terms of useful information for educators. This resource has been positively reviewed by publications from the International Dyslexia Association and the National Association of School Psychologists. My extensive review of the reading literature is consistent with previous reviews, such as the National Reading Panel, but provides updated information from the intervening 15 years.

Exciting findings about reading have resulted from large federal grant initiatives. These findings show that with changes in how we teach reading, we can prevent about one half to two thirds of the reading difficulties that we currently see. Also, for children who show reading difficulties, about half or more of them can get up to grade level and stay there for the long run. And for those who continue to struggle despite these encouraging efforts, studies show they can learn to read at a higher level than we have seen from such students in the past.

The findings from the studies coming out of these federal grant initiatives were so impressive that it was determined that these outcomes needed to become more

widespread. This prompted the development of the "response to intervention" (RTI) movement. However, the sad story behind RTI is that the implementation of RTI focused on the process, the steps, the procedures, the levels, and the universal screenings, but the nature of the highly successful prevention and intervention techniques were never adequately communicated. Rather, teachers and administrators were simply told they needed to use "research-based approaches" without being told what those were. This created a vacuum that has been filled primarily by continuing with the approaches schools had been using previously, except within a new framework. As a result, reading achievement since the RTI began has been largely similar to reading achievement prior to RTI. A large-scale federal review of RTI published in November 2015 indicated that RTI remediation was not working. While disappointing, this outcome was not surprising given that there is no evidence of widespread use of the kind of instructional and intervention approaches that resulted in the highly successful outcomes that prompted the development of RTI in the first place.

It is my hope that an Alaskan task force would incorporate and foster the dissemination of the knowledge base necessary to allow children in Alaska to receive the most highly effective general educational classroom instruction and remedial interventions. I would be happy to direct any task force members toward the research with those highly successful outcomes. I have had the fortunate opportunity to see this type of instruction firsthand in some real schools that have been willing to break with tradition and apply the scientific findings. The outcomes have been nothing short of amazing. It appears that the only barrier to the use of these effective instructional approaches is the lack of familiarity with these approaches and with the benefits they can provide.

With over 28 years of experience in public education, I firmly believe that teachers and administrators are trying to do the best they can, given what they know. An Alaskan task force can assist in improving the teacher knowledge base regarding reading acquisition and the most highly effective approaches to preventing and correcting reading problems.

American Federation for Teachers (1999). *Teaching reading IS rocket science.* Washington, D.C.: AFT.

Balu, R, Zhu, P., Doolittle, F., Schiller, E., Jenkins, J. & Gersten, R. (2015). *Evaluation of response to intervention practices for elementary school reading* (NCEE 2016-4000). Washington, DC: National Center for Education Evaluation and Regional Assistance, Institute of Education Sciences, U.S. Department of Education.

Joshi, R. M., & Cunningham, A. E. (2009). Special issue: What we know about the quality of literacy instruction. *Journal of Learning Disabilities, 42*(5), 397-480.

Kilpatrick, D. A. (2015). *Essentials of assessing, preventing, and overcoming reading difficulties.* Hoboken, NJ: Wiley.

McCardle, P. & Chhabra, V. (2004). (Eds.), *The voice of evidence in reading research.* Baltimore, MD: Brookes.

National Institute of Child Health and Human Development. (2000). *Report of the National Reading Panel. Teaching children to read: an evidence-based assessment of the scientific research literature on reading and its implications for reading instruction: Reports of the subgroups* (NIH Publication No. 00-4754). Washington, DC: U.S. Government Printing Office.

RE: Please pass HB64 and its companion bill SB27

Dear Representative Drummond,

As a parent of adult children who struggled and suffered inadequate reading instruction I am appalled as I listen to the parents of young students who are experiencing the same education pitfalls which existed more than a decade ago. All the money, all the time which has lapsed with NO improvements, UNACCEPTABLE.

Section 1: (1) Having the information that we Alaskans have a school system which is 5th from the bottom in reading proficiency (according to the National Assessment of Educational Progress – NAEP) UNACCEPTALBE. Our children and citizens deserve better. For me as a mom experiencing less than qualified teachers who sincerely were trying they just did not have the training or the curriculum. They didn't even know what they didn't know!

Similarly, the professors at the University of Alaska who train our teachers are not highly knowledgeable and skilled teachers of reading. If they themselves are not qualified how can they possibly provide the correct instruction for our future teachers? Within the education degreed program at University of Alaska there should be at least 15 credits of reading science. To meet Alaska's immediate need for highly qualified professors, the University of Alaska can partner with established reading science on line programs, as they currently do for speech language. This is important please, please approach this now and with fervor.

This task force needs to create permanency of a good reading law. We should have a fiscal note to cover the cost of nationally recognized experts to be on this task force. The value that an expert in this field brings is unquestionably what we need in Alaska.

Thank you, Representative Drummond for braving this topic with the introduction of this bill.

Best Regards,

Martha H. Gingras

Martha H. Gingras

January 24, 2017

12350 Industry Way Ste. 202
Anchorage, AK 99515
Phone: 907-301-4588
Fax: 866-554-1366

Dear Representative Drummond and House Education Committee:

Please support House Bill 64 to create a legislative task force for improving reading proficiency statewide.

As you know, students in Alaska have scored low in English reading and writing for a long time. Now is the time for the Legislature to take the lead for important changes needed in reading instruction statewide.

I have a background in Secondary Education with a specialization in Social Studies. I have worked with many high school students in my career, it astonished me how many of them struggled to read material that was at grade level, and even below. By the time I had worked with them at the secondary level, their excitement towards learning had considerably diminished, or so it seemed. Academics had taken a back seat and it was not from a lack of support at home. As I worked with my students, I would see an incredibly brilliant individual. I wondered why reading had become so challenging, what happened in their early academic career?
When I moved up to Alaska, I started tutoring part time at a clinic that specializes in dyslexia. The answer to my question had been answered. The second student I worked with was diagnosed with dyslexia. Despite working so hard on her academics, she would consistently receive a failing grade. The first months working with me were very challenging. I would present a brief paragraph with short vowel, single syllable words, it brought her to tears. It would take us 30 minutes to read through the passage together. However, with a generous amount of praise, she was able to decode it. The program we used was an Orton-Gillingham based, multi-sensory reading and spelling program.

Three years later, she decided she would like to apply to give the speech at her 6th grade graduation ceremony. She was selected. A girl who would cry at the thought of reading in front of her peers three short years prior, had written a speech and was selected to read in front of the entire school. She did it!

With explicit, structured, sequential, multi-sensory instruction, students with dyslexia can become confident individuals who love to learn. While I have the opportunity to work at a clinic that works with over 300 clients with a dyslexia diagnosis, I know there are thousands more in Alaska who need teachers who are trained in screening, early intervention techniques.

It is time for Alaska to acknowledge the importance of literacy for all of our students.

Kind Regards,

Ashly Beckes
Anchorage, Alaska

January 26, 2017

Representative Drummond
House Education Committee
Capital Building
Juneau, AK 99801

Senator Hughes
Senate Education Committee
Capital Building
Juneau, AK 99801

RE: Support for SB 27 and HB 64 for a Reading Proficiency Task Force

Dear Senator Hughes and Representative Drummond,

Please consider my support for new bills SB 27 and HB 64 that create(s) a legislative task force to recommend changes that will create a sustainable and scalable plan for improving reading for all Alaska's students and addresses the specific needs of students with dyslexia. I believe that the(se) bills are the first step in a process that will raise the academic reading proficiency of Alaska's public school students.

I want to thank you for all of the work that you've done on behalf of Alaska school children and I want to give you a dose of optimism about Alaska's ability to achieve the goal of increased reading proficiency. I have not always been optimistic. However, Changes in our knowledge about reading and reading instruction have been so dramatic in the last few years that I am now fully optimistic for our state. Those changes are due to advancements in the scientific studies of reading. We now know more about how to teach reading than ever before. I say with confidence that with your strong leadership and the scientific knowledge we have we can ensure that 95 to 98% of all Alaskan students can become proficient readers.

Creation of a Reading Proficiency Task Force can translate the scientific knowledge into actionable planning and implementation to empower teachers to do what they do best, that is teach. If you recall, Senator Wielechowski invited me to present at a Lunch and Learn in Juneau on April 4, 2016 as a member of the Alaska Reading Coalition. In that presentation, I explained the difficulty in translating the scientific knowledge of reading into the classrooms because of academics silos in teacher preparation programs and in professional development. This is a core problem in the low reading proficiency in Alaska and across our nation that legislative leaders like yourself are trying to mitigate.

Briefly, college professors, professional development educators, and teachers simply cannot teach what they do not know. Further, to quote Dr. Nancy Mather, Professor of Learning Disabilities at University Of Arizona said at the 2014 International Dyslexia Association conference, "We know how to teach reading. We're just not doing it." With your strong educational leadership, willingness to have crucial and difficult conversations, and the good people of Alaska we can change her quote to "Alaska knows how to teach reading. Alaska is going to do it."

Sincerely,

Posie Boggs

Posie Boggs

THE STATE of ALASKA
GOVERNOR BILL WALKER

Department of Health and Social Services
Senior and Disabilities Services
Governor's Council on Disabilities & Special Education
Patrick J. Reinhart, Executive Director

3601 C Street, Suite 740
Anchorage, Alaska 99503
Main: 907.269.8990
Fax: 907.269.8995

Re: HB64: "An Act relating to the establishment of the Task Force on Reading Proficiency and Reading Instruction for All Students and on the Effects of Dyslexia on Some Students."

The Governor's Council on Disabilities and Special Education (the Council) is the Special Education Advisory Panel (SEAP) for Alaska as required under Part B of the Individuals with Disabilities Education Act (IDEA). Our role is to involve stakeholders to advise and assist the state on special education and related services. Members are former special education students, parents of students with disabilities; disability rights legal advocates, special education teachers and paraprofessionals, school administrators, staff from the Department of Education & Early Development (EED), and other state agencies. The day to day work of the SEAP is done by the Council's Education Committee.

The Education Committee met recently to discuss this bill, and while we support the proposed Bill, we have reservations about the membership of the task force. As Alaska's SEAP we are federally funded to assist the state in gaps in special education, and in this capacity we strongly advocate for meaningful input from a broad and knowledgeable group of vested stakeholders. This involvement needs to be from the very beginning, not tagged on later on, as is often the case with education initiatives. We were very pleased to see the addition of a parent on the task force in the new CS. While the Council was not approached prior to the drafting of the legislation, we hope, as Alaska's SEAP, that we will be able to offer our expertise as one of the non-profit members named in the CS. We have parent members of students with dyslexia and a self-advocate/parent who professionally diagnoses dyslexia. Our other concern is the glaring lack of teachers. While early detection and intervention for dyslexia and other learning disabilities that affect reading is crucial, it seems incredibly short sighted to only include a K-3 teacher. It seems remiss to have so many legislatures and administrators, but no teachers with experience in reading interventions after the important 3rd grade benchmark, or teachers who have experience with secondary students who are still struggling with reading. We do not want to put a "tiny patch" on this problem but use it as a real opportunity for improving reading skills in Alaska, and we see that including more of those with real grassroots knowledge from the beginning as the place to start.

Thank you and we look forward to assisting you in any way we can.

David Kohler
Education Committee Chair

Amy Simpson
Council Chair

Creating Changes that Improves the Lives of People with Disabilities

The International DYSLEXIA Association

Promoting literacy through research, education, and advocacy.

Alaska Branch

January 26, 2017

Representative Drummond
House Education Committee
Capital Building
Juneau, AK 99801

Senator Hughes
Senate Education Committee
Capital Building
Juneau, AK 99801

RE: Support for SB 27 and HB 64 for a Reading Proficiency Task Force

Dear Senator Hughes and Representative Drummond,

The International Dyslexia Association Alaska Branch (IDA Alaska) thanks you for bring HB 64 and SB 27, READING PROFICIENCY TASK FORCE; DYSLEXIA to your respective committees for hearing. We fully support the bills.

It is quite simple. The scientific research for 40 years has brought consensus to not only reading for students with dyslexia but also reading and reading instruction for all students. The problem is getting this research into the hands of professors, teachers, and educators at all levels.

Attached, please find the Knowledge and Practice Standards for Teachers of Reading and the names of 25 university programs that certify they produce graduates who have the content knowledge in our standards.

Sincerely,

Lori Pickett, President IDA Alaska

Enclosures: 2 University Programs Accredited by IDA and the IDA Knowledge and Practice Standards for Teachers of Reading

International DYSLEXIA Association®

Knowledge and Practice Standards for Teachers of Reading

With Commentary for Classroom Educators

International Dyslexia Association,
Professional Standards and Practices Committee
2010

Louisa Moats, Committee Chair
Suzanne Carreker
Rosalie Davis
Phyllis Meisel
Louise Spear-Swerling
Barbara Wilson

INTRODUCTION

Purpose of These Standards

The International Dyslexia Association (IDA) offers these standards to guide the preparation, certification, and professional development of those who teach reading and related literacy skills in classroom or other settings. The term *teacher* is used throughout this document to refer to anyone whose responsibilities include reading instruction. The standards aim to specify what any individual responsible for teaching reading should know and be able to do.

Teacher preparation programs should ascribe to a common set of professional standards for the benefit of the students they serve, including those with diverse learning needs. Adherence to these standards should assure the public that individuals who teach reading are prepared to implement evidence-based and instructionally effective practices for reading instruction.

Background: Why These Standards Are Necessary

Teaching reading effectively requires considerable knowledge and skill. In 2000, the National Reading Panel, drawing upon decades of research, issued a report that identified the five reading skills necessary to become a successful reader: phonemic awareness, phonics, fluency, vocabulary, and comprehension. The report cited the need for highly qualified teachers, but did not spell out the knowledge and skill base necessary to teach students to become successful readers.

The National Assessment of Educational Progress consistently finds that about 36% of all fourth graders read at a level described as "below basic." Included in this group are students living in poverty, English language learners, and students who demonstrate significant weaknesses with language processes, including but not limited to phonological processing, that are the root cause of dyslexia and related learning difficulties. Of those who are referred to special education services in public schools, approximately 85% are referred because of their problems with language, reading, and/or writing.

The Common Core State Standards, adopted by the majority of states, and other college and career readiness standards, require a shift towards more rigorous expectations for students in reading and writing. Students are required to read complex text efficiently and with high levels of comprehension. This expectation includes students with reading disabilities, and those who struggle for other reasons, such as a language barrier. The IDA Standards focus on the teacher knowledge and skills required to teach these and other standards.

Mastering the Common Core or similar college readiness standards is a challenge for many with reading difficulties. However, informed and effective classroom instruction, especially in the early grades, can prevent most reading problems from developing and ameliorate others. For those students with dyslexia or other learning difficulties, effective intervention from a well-trained instructor can lessen the impact of reading difficulties and increase student success.

How to Use These Standards

The standards outline the 1) content knowledge necessary to teach reading and writing to all students, including those who are at risk for reading difficulty; and 2) practices of effective instruction. Teachers should have the foundational knowledge of language, literacy development, and individual differences to serve all the children in their classroom.

The standards may be used for several purposes, including but not limited to:

- self-study through professional learning communities and other peer collaboration groups;
- course design within teacher certification programs;
- practicum requirements within certification programs;
- professional development efforts
- criteria for membership in IDA's coalition of organizations that provide training and supervision of teachers, tutors, and specialists;

- criteria for the preparation of those professionals receiving referrals through IDA offices; and
- a content framework for the development of licensing or certification examinations.

How to Read the Standards

The Standards include two major sections. Section I addresses foundation concepts, knowledge of language structure, the principles of structured language teaching, administration and interpretation of assessments, knowledge of dyslexia and other learning disorders, and ethical standards for the profession. Section II addresses the application skills teachers and specialists should demonstrate.

In Section I, Standards A, B, C, and E are presented in two columns. The column on the left refers to content knowledge that can be learned and tested independent of observed teaching competency. The column on the right delineates the practical skills of teaching that depend on or that are driven by content knowledge. The exception to this format is Standard D. It includes a third column on the right that specifies in greater detail what the teacher or specialist should be able to do.

Section II addresses skills to be demonstrated in supervised practice by novice teachers in training, designated Level 1, or by specialists, designated as Level 2. The recommended standards for preparation of teachers and specialists provided in this section are distinguished by these two levels.

SECTION I: KNOWLEDGE AND PRACTICE STANDARDS

A. Foundation Concepts about Oral and Written Learning

Unlike learning to speak, which occurs when children hear speech in their environment, learning to read does not happen naturally. Most children must be taught foundational concepts of reading. Recently, a convergence of research has identified what children must be taught and how best to teach those skills. The skills include processing of oral language at the phonemic level, the alphabetic principle, and metacognitive strategies. Teachers need to know how to teach these skills and how to support the development of psychological processes such as executive function and working memory, and how to promote motivation to read.

Oral and written language contributes reciprocally to the development of each and both impact the ability to read and write. Receptive and expressive oral language contributes to the ability to listen and to speak; receptive understanding of written language contributes to reading comprehension while expressive use of spoken language contributes to the ability to write.

Content Knowledge	Application
1. Understand and explain the language processing requirements of proficient reading and writing • Phonological (speech sound) processing • Orthographic (print) processing • Semantic (meaning) processing • Syntactic (sentence level) processing • Discourse (connected text level) processing	1. a. Explain the domains of language and their importance to proficient reading and writing (Level 1). b. Explain a scientifically valid model of the language processes underlying reading and writing (Level 2).
2. Understand and explain other aspects of cognition and behavior that affect reading and writing • Attention • Executive function • Memory • Processing speed • Graphomotor control	2. a. Recognize that reading difficulties coexist with other cognitive and behavioral problems (Level 1). b. Explain a scientifically valid model of other cognitive influences on reading and writing, and explain major research findings regarding the contribution of linguistic and cognitive factors to the prediction of literacy outcomes (Level 2).
3. Define and identify environmental, cultural, and social factors that contribute to literacy development (e.g., language spoken at home, language and literacy experiences, cultural values).	3. Identify (Level 1) or explain (Level 2) major research findings regarding the contribution of environmental factors to literacy outcomes.

Content Knowledge	Application
4. Know and identify phases in the typical developmental progression of • Oral language (semantic, syntactic, pragmatic) • Phonological skill • Printed word recognition • Spelling • Reading fluency • Reading comprehension • Written expression	4. Match examples of student responses and learning behavior to phases in language and literacy development (Level 1).
5. Understand and explain the known causal relationships among phonological skill, phonic decoding, spelling, accurate and automatic word recognition, text reading fluency, background knowledge, verbal reasoning skill, vocabulary, reading comprehension, and writing.	5. Explain how a weakness in each component skill of oral language, reading, and writing may affect other related skills and processes across time (Level 2).
6. Know and explain how the relationships among the major components of literacy development change with reading development (i.e., changes in oral language, including phonological awareness; phonics and word recognition; spelling; reading and writing fluency; vocabulary; reading comprehension skills and strategies; written expression).	6. Identify the most salient instructional needs of students who are at different points of reading and writing development (Level 2).
7. Know reasonable goals and expectations for learners at various stages of reading and writing development.	7. Given case study material, explain why a student is/is not meeting goals and expectations in reading or writing for his or her age/grade (Level 1).

B. Knowledge of the Structure of Language

All students require and benefit from knowledge about the structure of their language; such knowledge is essential for struggling readers. To teach students effectively, teachers need in-depth knowledge about the structure of language including the ability to recognize whether words are phonetically regular or irregular, common morphemes in words, and common sentence structure in English. Without this kind of knowledge, teachers may have difficulty interpreting assessments correctly, or they may provide unintentionally confusing instruction to students. Similarly, to teach spelling and writing effectively, teachers need a knowledge base about language structure, including sentence and discourse structure. Research suggests that for teachers to acquire an understanding of language structure, they need explicit and in-depth instruction in this area.

Content Knowledge	Application
Phonology (The Speech Sound System)	
1. Identify, pronounce, classify, and compare the consonant and vowel phonemes of English.	1. a. Identify similar or contrasting features among phonemes (Level 1). b. Reconstruct the consonant and vowel phoneme inventories and identify the feature differences between and among phonemes (Level 2).
Orthography (The Spelling System)	
2. Understand the broad outline of historical influences on English spelling patterns, especially Anglo-Saxon, Latin (Romance), and Greek.	2. Recognize typical words from the historical layers of English (Anglo-Saxon, Latin/Romance, Greek) (Level 1).
3. Define *grapheme* as a functional correspondence unit or representation of a phoneme.	3. Accurately map graphemes to phonemes in any English word (Level 1).
4. Recognize and explain common orthographic rules and patterns in English.	4. Sort words by orthographic "choice" pattern; analyze words by suffix ending patterns and apply suffix ending rules.
5. Know the difference between "high frequency" and "irregular" words.	5. Identify printed words that are the exception to regular patterns and spelling principles; sort high frequency words into regular and exception words (Level 1).
6. Identify, explain, and categorize six basic syllable types in English spelling.	6. Sort, pronounce, and combine regular written syllables and apply the most productive syllable division principles (Level 1).
Morphology	
7. Identify and categorize common morphemes in English, including Anglo-Saxon compounds, inflectional suffixes, and derivational suffixes; Latin-based prefixes, roots, and derivational suffixes; and Greek-based combining forms.	7. a. Recognize the most common prefixes, roots, suffixes, and combining forms in English content words, and analyze words at both the syllable and morpheme levels (Level 1). b. Recognize advanced morphemes (e.g., chameleon or assimilated +prefixes) (Level 2).

Semantics	
8. Understand and identify examples of meaningful word relationships or semantic organization.	8. Match or identify examples of word associations, antonyms, synonyms, multiple meanings and uses, semantic overlap, and semantic feature analysis (Level 1).
Syntax	
9. Define and distinguish among phrases, dependent clauses, and independent clauses in sentence structure.	9. Construct and deconstruct simple, complex, and compound sentences (Level 1).
10. Identify the parts of speech and the grammatical role of a word in a sentence.	10. a. Identify the basic parts of speech and classify words by their grammatical role in a sentence (Level 1). b. Identify advanced grammatical concepts (e.g., infinitives, gerunds) (Level 2).
Discourse Organization	
11. Explain the major differences between narrative and expository discourse.	11. Classify text by genre; identify features that are characteristic of each genre, and identify graphic organizers that characterize typical structures (Level 1).
12. Identify and construct expository paragraphs of varying logical structures (e.g., classification, reason, sequence).	12. Identify main idea sentences, connecting words, and topics that fit each type of expository paragraph organization (Level 2).
13. Identify cohesive devices in text and inferential gaps in the surface language of text.	13. Analyze text for the purpose of identifying the inferences that students must make to comprehend (Level 2).

C-1. Structured Language Teaching: Phonology

Phonological awareness, basic print concepts, and knowledge of letter sounds are important foundational areas of literacy for all students. Ample research exists to inform teaching of phonological awareness, including research on the phonological skills to emphasize in instruction, appropriate sequencing of instruction, and integrating instruction in phonological awareness with instruction in alphabet knowledge. Poor phonological awareness is a core weakness for students with dyslexia. Without early, research-based intervention, children who struggle in these areas are likely to continue to have reading difficulties. It is important for teachers to understand how to teach these foundational skills, especially to effectively prevent or ameliorate many children's reading problems, including those of students with dyslexia.

Content Knowledge	Application
1. Identify the general and specific goals of phonological skill instruction.	1. Explicitly state the goal of any phonological awareness teaching activity (Level 1).
2. Know the progression of phonological skill development (i.e., rhyme, syllable, onset-rime, phoneme differentiation).	2. a. Select and implement activities that match a student's developmental level of phonological skill (Level 1). b. Design and justify the implementation of activities that match a student's developmental level of phonological skill (Level 2).
3. Identify the differences among various phonological manipulations, including identifying, matching, blending, segmenting, substituting, and deleting sounds.	3. Demonstrate instructional activities that identify, match, blend, segment, substitute, and delete sounds (Level 1).
4. Understand the principles of phonological skill instruction: brief, multisensory, conceptual, and auditory-verbal.	4. a. Successfully produce vowel and consonant phonemes (Level 1). b. Teach articulatory features of phonemes and words; use minimally contrasting pairs of sounds and words in instruction; support instruction with manipulative materials and movement (Level 2).
5. Understand the reciprocal relationships among phonological processing, reading, spelling, and vocabulary.	5. a. Direct students' attention to speech sounds during reading, spelling, and vocabulary instruction using a mirror, discussion of articulatory features, and so on as scripted or prompted (Level 1). b. Direct students' attention to speech sounds during reading, spelling, and vocabulary instruction without scripting or prompting (Level 2).
6. Understand the phonological features of a second language or dialect, such as Spanish, and how they may interfere with English pronunciation and phonics.	6. Explicitly contrast first and second language phonological systems, as appropriate, to anticipate which sounds may be most challenging for the second language learner (Level 2).

C-2. Structured Language Teaching: Phonics and Word Recognition

The development of accurate word decoding skills—that is, the ability to read unfamiliar words by applying phonics knowledge—is an essential foundation for reading comprehension for all students. Teachers require the ability to provide explicit, systematic, appropriately sequenced instruction in phonics to all students. This is critical in helping to prevent reading problems in beginning readers. Decoding skills are often a central weakness for students with learning disabilities in reading, especially those with dyslexia. For this population, teachers should also understand the usefulness of multisensory, multimodal techniques to focus students' attention on printed words, engage students, and enhance memory and learning.

Content Knowledge	Application
1. Know or recognize how to order phonics concepts from easier to more difficult.	1. Plan lessons with a cumulative progression of word recognition skills that build one on another (Level 1).
2. Understand principles of explicit and direct teaching: model, lead, give guided practice, and review.	2. Explicitly and effectively teach (e.g., information taught is correct, students are attentive, teacher checks for understanding, teacher scaffolds students' learning) concepts of word recognition and phonics; apply concepts to reading single words, phrases, and connected text (Level 1).
3. State the rationale for multisensory and multimodal techniques.	3. Demonstrate the simultaneous use of two or three learning modalities (to include listening, speaking, movement, touch, reading, and/or writing) to increase engagement and enhance memory (Level 1).
4. Know the routines of a complete lesson format, from the introduction of a word recognition concept to fluent application in meaningful reading and writing.	4. Plan and effectively teach all steps in a decoding lesson, including single-word reading and connected text that is read fluently, accurately, and with appropriate intonation and expression (Level 1).
5. Understand research-based adaptations of instruction for students with weaknesses in working memory, attention, executive function, or processing speed.	5. Adapt the pace, format, content, strategy, or emphasis of instruction according to students' pattern of response (Level 2).

C-3. Structured Language Teaching: Fluent, Automatic Reading of Text

Reading fluency is the ability to read text effortlessly and quickly as well as accurately. Fluency develops among typical readers in the primary grades. Because fluency is a useful predictor of overall reading competence, especially in elementary-aged students, a variety of fluency tasks have been developed for use in screening and progress-monitoring measures. Poor reading fluency is a very common symptom of dyslexia and other reading disabilities; problems with reading fluency can linger even when students' accuracy in word decoding has been improved through effective phonics intervention. Although fluency difficulties may sometimes be associated with processing weaknesses, considerable research supports the role of practice, wide exposure to printed words, and focused instruction in the development and remediation of fluency. To address students' fluency needs, teachers must have a range of competencies, including the ability to interpret fluency-based measures appropriately, to place students in appropriate types and levels of texts for reading instruction, to stimulate students' independent reading, and to provide systematic fluency interventions for students who require them. Assistive technology (e.g., text-to-speech software) is often employed to help students with serious fluency difficulties function in general education settings. Therefore, teachers, and particularly specialists, require knowledge about the appropriate uses of this technology.

Content Knowledge	Application
1. Understand the role of fluency in word recognition, oral reading, silent reading, comprehension of written discourse, and motivation to read.	1. Assess students' fluency rate and determine reasonable expectations for reading fluency at various stages of reading development, using research-based guidelines and appropriate state and local standards and benchmarks (Level 1).
2. Understand reading fluency as a stage of normal reading development; as the primary symptom of some reading disorders; and as a consequence of practice and instruction.	2. Determine which students need a fluency-oriented approach to instruction, using screening, diagnostic, and progress-monitoring assessments (Level 2).
3. Define and identify examples of text at a student's frustration, instructional, and independent reading level.	3. Match students with appropriate texts as informed by fluency rate to promote ample independent oral and silent reading (Level 1).
4. Know sources of activities for building fluency in component reading skills.	4. Design lesson plans that incorporate fluency-building activities into instruction at sub-word and word levels (Level 1).
5. Know which instructional activities and approaches are most likely to improve fluency outcomes.	5. Design lesson plans with a variety of techniques to build reading fluency, such as repeated readings of passages, alternate oral reading with a partner, reading with a tape, or rereading the same passage up to three times. (Level 1).
6. Understand techniques to enhance student motivation to read.	6. Identify student interests and needs to motivate independent reading (Level 1).
7. Understand appropriate uses of assistive technology for students with serious limitations in reading fluency.	7. Make appropriate recommendations for use of assistive technology in general education classes for students with different reading profiles (e.g., dyslexia versus language disabilities) (Level 2).

C-4. Structured Language Teaching: Vocabulary

Vocabulary, or knowledge of word meanings, plays a key role in reading comprehension. Knowledge of words is multifaceted, ranging from partial recognition of the meaning of a word to deep knowledge and the ability to use the word effectively when speaking or writing. Research supports both explicit, systematic teaching of word meanings and indirect methods of instruction such as those involving inferring meanings of words from sentence context or from word parts (e.g., common roots and affixes). Teachers should know how to develop students' vocabulary knowledge through both direct and indirect methods. They also should understand the importance of wide exposure to words through reading and listening, to students' vocabulary development. For students with dyslexia and other reading problems, oral vocabulary knowledge is frequently strong, but over time, low volume of reading may tend to reduce these students' exposure to rich vocabulary relative to their typical peers. Explicit teaching of word meanings and encouragement of wide independent reading in appropriate texts are ways to help increase vocabulary development.

Content Knowledge	Application
1. Understand the role of vocabulary development and vocabulary knowledge in comprehension. 2. Understand the role and characteristics of direct and indirect (contextual) methods of vocabulary instruction. 3. Know varied techniques for vocabulary instruction before, during, and after reading. 4. Understand that word knowledge is multifaceted. 5. Understand the sources of wide differences in students' vocabularies.	1. Teach word meanings directly using contextual examples, structural (morpheme) analysis, antonyms and synonyms, definitions, connotations, multiple meanings, and semantic feature analysis (Levels 1 and 2). 2. Lesson planning reflects: A. Selection of material for read-alouds and independent reading that will expand students' vocabulary. B. Identification of words necessary for direct teaching that should be known before the passage is read. C. Repeated encounters with new words and multiple opportunities to use new words orally and in writing. D. Recurring practice and opportunities to use new words in writing and speaking.

C-5. Structured Language Teaching: Text Comprehension

Reading comprehension is the ultimate goal of reading instruction. Reading comprehension depends not only upon the component abilities discussed in previous sections, but also upon other factors, such as background knowledge and knowledge of text structure. Comprehension, background knowledge, and motivation are closely tied. Comprehension is easier when background knowledge is high, which in turn increases motivation. Equally, readers most likely will have more background knowledge in areas in which they are motivated to read, which increases comprehension. Appendix A provides references on motivation.

In order to plan effective instruction and intervention in reading comprehension, teachers must understand the array of abilities that contribute to reading comprehension and use assessments to help pinpoint students' weaknesses. For instance, a student with dyslexia, whose reading comprehension problems are associated mainly with poor decoding and dysfluent reading, will need different emphases in intervention than will a student with poor comprehension due to weaknesses in vocabulary and oral comprehension. Teachers must be able to model and teach research-based comprehension strategies, such as summarization and the use of graphic organizers, and apply methods that promote reflective reading, metacognition, and student engagement. Oral comprehension and reading comprehension have a reciprocal relationship; effective oral comprehension facilitates reading comprehension, and wide reading contributes to the development of oral comprehension. Teachers should understand the relationships among oral language, reading comprehension, and written expression, and they should be able to use appropriate writing activities to build students' comprehension. Teachers should also have a rich understanding of children's literature and how best to utilize it with a diverse group of learners.

Content Knowledge	Application
1. Be familiar with teaching strategies that are appropriate before, during, and after reading and that promote reflective reading.	1. a. State purpose for reading, elicit or provide background knowledge, and explore key vocabulary (Level 1). b. Query during text reading to foster attention to detail, inference-making, and mental model construction (Level 1). c. Use graphic organizers, note-taking strategies, retelling and summarizing, and cross-text comparisons (Level 1).
2. Contrast the characteristics of major text genres, including narration, exposition, and argumentation.	2. Lesson plans reflect a range of genres, with emphasis on narrative and expository texts (Level 1).
3. Understand the similarities and differences between written composition and text comprehension, and the usefulness of writing in building comprehension.	3. Model, practice, and share written responses to text; foster explicit connections between new learning and what was already known (Level 1).
4. Identify in any text the phrases, clauses, sentences, paragraphs and "academic language" that could be a source of miscomprehension.	4. Anticipate confusions and teach comprehension of figurative language, complex sentence forms, cohesive devices, and unfamiliar features of text (Level 2).

5. Understand levels of comprehension including the surface code, text base, and mental model (situation model).	5. Plan lessons to foster comprehension of the surface code (the language), the text base (the underlying ideas), and a mental model (the larger context for the ideas) (Level 2).
6. Understand factors that contribute to deep comprehension, including background knowledge, vocabulary, verbal reasoning ability, knowledge of literary structures and conventions, and use of skills and strategies for close reading of text.	6. Adjust the emphasis of lessons to accommodate learners' strengths and weaknesses and pace of learning (Level 2).

C-6. Structured Language Teaching: Handwriting, Spelling, and Written Expression

Just as teachers need to understand the component abilities that contribute to reading comprehension, they also need a componential view of written expression. Important component abilities in writing include basic writing (transcription) skills such as handwriting, keyboarding, spelling, capitalization, punctuation, and grammatical sentence structure; text generation (composition) processes that involve translating ideas into language, such as appropriate word choice, writing clear sentences, and developing an idea across multiple sentences and paragraphs; and planning, revision and editing processes. Effective instruction in written expression depends on teachers' abilities to provide explicit, systematic teaching in each area, as well as to pinpoint an individual student's weaknesses in these different component areas of writing. Teachers must also be able to teach research-based strategies in written expression, such as those involving strategies for planning and revising compositions. They should understand the utility of multisensory methods in both handwriting and spelling instruction. Assistive technology can be especially helpful for students with writing difficulties. Teachers should recognize the appropriate uses of technology in writing (e.g., spell-checkers can be valuable but do not replace spelling instruction and have limited utility for students whose misspellings are not recognizable). Specialists should have even greater levels of knowledge about technology.

Content Knowledge	Application
Handwriting 1. Know research-based principles for teaching letter naming and letter formation, both manuscript and cursive. 2. Know techniques for teaching handwriting fluency.	Handwriting 1. Use multisensory techniques to teach letter naming and letter formation in manuscript and cursive forms (Level 1). 2. Implement strategies to build fluency in letter formation, and copying and transcription of written language (Level 1).
Spelling 1. Recognize and explain the relationship between transcription skills and written expression. 2. Identify students' levels of spelling development and orthographic knowledge. 3. Recognize and explain the influences of phonological, orthographic, and morphemic knowledge on spelling. Written Expression 1. Understand the major components and processes of written expression and how they interact (e.g., basic writing/ transcription skills versus text	Spelling 1. Explicitly and effectively teach (e.g., information taught is correct, students are attentive, teacher checks for understanding, teacher scaffolds students' learning) concepts related to spelling (e.g., a rule for adding suffixes to base words) (Level 1). 2. Select materials and/or create lessons that address students' skill levels (Level 1). 3. Analyze a student's spelling errors to determine his or her instructional needs (e.g., development of phonological skills versus learning spelling rules versus application of orthographic or morphemic knowledge in spelling) (Level 2). Written Expression 1. Integrate basic skill instruction with composition in writing lessons.

generation).	
2. Know grade and developmental expectations for students' writing in the following areas: mechanics and conventions of writing, composition, revision, and editing processes.	2. a. Select and design activities to teach important components of writing, including mechanics/ conventions of writing, composition, and revision and editing processes. b. Analyze students' writing to determine specific instructional needs. c. Provide specific, constructive feedback to students targeted to students' most critical needs in writing. d. Teach research-based writing strategies such as those for planning, revising, and editing text. e. Teach writing (discourse) knowledge, such as the importance of writing for the intended audience, use of formal versus informal language, and various schemas for writing (e.g., reports versus narratives versus arguments).
3. Understand appropriate uses of assistive technology in written expression.	3. Make appropriate written recommendations for the use of assistive technology in writing.

D. Interpretation and Administration of Assessments for Planning Instruction

Teachers work hard to understand what students have learned. A teacher's ability to administer and interpret assessments accurately is essential both to planning effective instruction and to early identification of students' learning problems. Appropriate assessments enable teachers to recognize early signs that a child is either on track or may not be progressing as expected in reading development. Effective assessment helps teachers identify students who may be at risk for dyslexia or other learning disabilities. Carefully developed assessment practices permit teachers to target instruction to meet individual student's needs and recognize when to refer students for more extensive diagnostic assessment.

It is important to understand that there are different types of assessments for different purposes (e.g., brief but frequent assessments to monitor progress in specific skills versus more lengthy, comprehensive assessments to provide detailed diagnostic information). Such assessments are an important component of frameworks of multi-tiered systems of support or response to intervention. It is also important to recognize which type of assessment is called for in a particular situation, where to find unbiased information about the adequacy of published tests, and how to interpret this information correctly. It is important for teachers to understand basic principles of test construction and concepts such as reliability and validity. They should also understand how an individual student's component profile may influence his or her performance on a particular test, especially on broad measures of reading comprehension and written expression. For example, a child with very slow reading is likely to perform better on an untimed measure of reading comprehension than on a stringently timed measure; a child with writing problems may perform especially poorly on a reading comprehension test that requires lengthy written responses to open-ended questions.

Understanding assessment enables teachers to help students form positive perceptions of themselves as readers and acquire a love of reading so important for academic success. Classroom teachers use assessment to ensure children are gaining the necessary foundational skills in reading so students feel confident engaging in reading for continuous, lifelong enjoyment and learning.

Content Knowledge	Application	Observable Competencies for Teaching Students with Dyslexia and Related Difficulties
1. Understand the differences among screening, diagnostic, outcome, and progress-monitoring assessments.	1. Match each type of assessment and its purpose (Level 1).	1. Administer screenings and progress monitoring assessments (Level 1)
2. Understand basic principles of test construction, including reliability, validity, and norm-referencing, and know the most well-validated screening tests designed to identify students at risk for reading difficulties.	2. Match examples of technically adequate, well-validated screening, diagnostic, outcome, and progress-monitoring assessments (Level 1).	2. Explain why individual students are or are not at risk in reading based on their performance on screening assessments (Level 1).
3. Understand the principles of progress-monitoring and the use of graphs to indicate	3. Using case study data, accurately interpret progress-monitoring graphs to decide	3. Display progress-monitoring data in graphs that are understandable to students

progress.	whether or not a student is making adequate progress (Level 1).	and parents (Level 1).
4. Know the range of skills typically assessed by diagnostic surveys of phonological skills, decoding skills, oral reading skills, spelling, and writing.	4. Using case study data, accurately interpret subtest scores from diagnostic surveys to describe a student's patterns of strengths and weaknesses and instructional needs (Level 2).	4. Administer educational diagnostic assessments using standardized procedures (Level 2).
5. Recognize the content and purposes of the most common diagnostic tests used by psychologists and educational evaluators.	5. Find and interpret appropriate print and electronic resources for evaluating tests (Level 1).	5. Write reports that clearly and accurately summarize a student's current skills in important component areas of reading and reading comprehension (Level 2).
6. Interpret measures of reading comprehension and written expression in relation to an individual child's component profile.	6. Using case study data, accurately interpret a student's performance on reading comprehension or written expression measures and make appropriate instructional recommendations.	6. Write appropriate, specific recommendations for instruction and educational programming based on assessment data (Level 2).

E. Knowledge of Dyslexia and Other Learning Disorders

To identify children with dyslexia and other learning disabilities, teachers need to be able to recognize the key symptoms of these disorders, as well as how the disorders differ from each other. These standards are supported by research and by accepted diagnostic guidelines. It is important that teachers recognize the following characteristics of dyslexia in relation to other reading problems and learning difficulties:

- Dyslexia is a language-based neurological disorder of learning to read and write originating from a core or basic problem with phonological processing intrinsic to the individual. Its primary symptoms are inaccurate and/or slow printed word recognition and poor spelling – problems that in turn affect reading fluency and comprehension and written expression. Other types of reading disabilities include specific difficulties with reading comprehension and/or speed of processing (reading fluency). These problems may exist in relative isolation or may overlap extensively in individuals with reading difficulties.
- Dyslexia often exists in individuals with aptitudes, talents, and abilities that enable them to be successful in many domains.
- Dyslexia often coexists with other developmental difficulties and disabilities, including problems with attention, memory, and executive function.
- Dyslexia exists on a continuum. Many students with milder forms of dyslexia are never officially diagnosed and are not eligible for special education services. They deserve appropriate instruction in the regular classroom and through other intervention programs.
- Appropriate recognition and treatment of dyslexia is the responsibility of all educators and support personnel in a school system, not just the reading or special education teacher.
- Although early intervention is the most effective approach, individuals with dyslexia and other reading difficulties can be helped at any age.
- Students who are English language learners may have dyslexia or other reading difficulties. It is important for educators to determine if a student's difficulties are based in second language acquisition or due to a reading difficulty.

In order to plan instruction and detect older students with learning disabilities who may have been overlooked in the early grades, teachers also should understand how students' difficulties may change over time, based on developmental patterns, experience, and instruction, and increased expectations across grades.

Content Knowledge	Application
1. Understand the most common intrinsic differences between good and poor readers (i.e., cognitive, neurobiological, and linguistic).	1. a. Recognize scientifically accepted characteristics of individuals with poor word recognition (e.g., overdependence on context to aid word recognition; inaccurate nonword reading) (Level 1). b. Identify student learning behaviors and test profiles typical of students with dyslexia and related learning difficulties. (Level 2).
2. Recognize the tenets of the NICHD/IDA definition of dyslexia.	2. Explain the reasoning or evidence behind the main points in the definition (Level 1).
3. Recognize that dyslexia and other reading difficulties exist on a continuum of severity.	3. Recognize levels of instructional intensity, duration, and scope appropriate for mild, moderate, and severe reading disabilities (Level 1).

4. Identify the distinguishing characteristics of dyslexia and related reading and learning disabilities (including developmental language comprehension disorder, attention deficit hyperactivity disorder, disorders of written expression or dysgraphia, mathematics learning disorder, nonverbal learning disorders, etc.).	4. Match symptoms of the major subgroups of poor readers as established by research, including those with dyslexia, and identify typical case study profiles of those individuals (Level 2).
5. Identify how symptoms of reading difficulty may change over time in response to development and instruction.	5. Identify predictable ways that symptoms might change as students move through the grades (Level 2).
6. Understand federal and state laws that pertain to learning disabilities, especially reading disabilities and dyslexia.	6. a. Explain the most fundamental provisions of federal and state laws pertaining to the rights of students with disabilities, especially students' rights to a free, appropriate public education, an individualized educational plan, services in the least restrictive environment, and due process (Level 1). b. Appropriately implement federal and state laws in identifying and serving students with learning disabilities, reading disabilities, and dyslexia (Level 2).

SECTION II: GUIDELINES PERTAINING TO SUPERVISED PRACTICE OF TEACHERS WHO WORK IN SCHOOL SETTINGS

In addition to providing the necessary knowledge base, it is equally important for teacher training programs to provide opportunities for teachers to practice effective, evidence-based teaching until they reach the expected level of expertise to ensure student success.

Training programs for pre-service teachers often distinguish levels of expertise by the skills and experience of the individual and the amount of supervised practice required for certification.

Level I individuals are practitioners with basic knowledge who:

1. implement an appropriate program with fidelity
2. formulate and implement an appropriate, differentiated lesson plan
3. demonstrate proficiency to instruct individuals with a reading disability or dyslexia

To attain Level I status, an individual must:

- pass an approved basic knowledge proficiency exam
- demonstrate (over time) instructional proficiency in all Level 1 areas outlined on IDA Knowledge and Practice Standards, Section I that is responsive to student needs
- document significant student progress with formal and informal assessments as a result of the instruction.

To attain Level II status, an individual must:

- pass an approved basic knowledge proficiency exam
- complete a one-to-one practicum with a student or small group of one to three well-matched students who have a documented reading disability. A recognized, certified instructor* provides consistent oversight and observations of instruction delivered to the same student(s) over time, and the practicum continues until expected proficiency is reached.**
- demonstrate (over time) instructional proficiency in all Level 1 and 2 areas outlined on IDA Standards, Section I that is responsive to student needs.
- provide successful instruction to several individuals with dyslexia who demonstrate varying needs and document significant student progress with formal and informal assessments as a result of the instruction.
- complete an approve educational assessment of a student with dyslexia and/or language-based reading disability, including student history and comprehensive recommendations.

*A recognized or certified instructor is an individual who has met all of the requirements of the level they supervise but who has additional content knowledge and experience in implementing and observing instruction for students with dyslexia and other reading difficulties in varied settings. A recognized instructor has been recommended by or certified by an approved trainer mentorship program that meets these standards. The trainer mentorship program has been reviewed by and approved by the IDA Standards and Practices Committee.

**Documentation of proficiency must be 1) completed by a recognized/certified instructor providing oversight in the specified program; 2) completed during full (not partial) lesson observations; and 3) must occur at various intervals throughout the instructional period with student.

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Introduction

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Section I: C-4: Structured Language Teaching: Vocabulary

Level 1

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Ebbers, S. (2006). *Vocabulary through morphemes*. Longmont, CO: Sopris West.

Beck, I. L., McKeown, M. G., & Kucan, L. (2013). *Bringing words to life, Second Edition: Robust vocabulary instruction,*. New York: Guilford Press.

Biemiller, A. (1999). Language and reading success. In J. Chall (Ed.), *From reading research to practice, A series for teachers.* Cambridge, MA: Brookline Books.

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Level 2

Carlisle, J., & Rice, M. S. (2003). *Reading comprehension: Research-based principles and practices.* Baltimore: York Press.

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Section I: C-5: Structured Language Teaching: Text Comprehension

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Willingham, D. T. (2006-07). The usefulness of brief instruction in reading comprehension strategies. *American Educator, 30*(4), 39–45.

Level 2

Barnes, M. A., Johnston, A. M., & Dennis, M. (2007). Comprehension in a neurodevelopmental disorder, Spina Bifida Myelomeningocele. In K. Cain & J. V. Oakhill (Eds.), *Children's comprehension problems in oral and written language: A cognitive perspective* (pp. 193–217). New York: Guilford Press.

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Section I: C-6: Structured Language Teaching: Handwriting, Spelling, and Written Expression

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Graham, S., McArthur, C.A., & Fitzgerald, J. (Eds.). (2007). *Best practices in writing instruction*. New York: Guilford Press.
Joshi, M., Treiman, R., Carreker, S., & Moats, L. C. (2008/2009) How words cast their spell: Spelling is an integral part of learning the language, not a matter of memorization. *American Educator, 32*(4), 6–16, 42–43.
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Level 2

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Section I D: Interpretation and Administration of Assessments for Planning Instruction

Level 1

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Section I E: Knowledge of Dyslexia and Other Learning Disorders

Level 1

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Appendix A: Motivation

While researchers have studied motivation from a variety of perspectives, it is clear that motivation plays a major role in reading development and achievement. If we want students to become motivated to read and to engage deeply in reading, it is critical that teachers and reading specialists help students build the strong foundational skills that are outlined in the IDA Standards. Mastery of these skills will motivate children to spend more time reading, and increased reading will increase their achievement and academic success. Teachers should also consider individual reading motivators so that students choose to engage in reading for continuous, lifelong enjoyment and learning.

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Appendix B: Children's Literature Bibliography

The following books provide an engaging way to support the early literacy skills of letter learning, letter-sound relationships and phonemic awareness.*

Alphabet for All!

Arnosky, J. 1999. *Mouse Letters: A Very First Alphabet Book*. New York: Clarion.

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Hyman, T.S. 2000. *The Alphabet Game*. New York: SeaStar Books.

Inkpen, Mick 2000. *Kipper's A to Z. An Alphabet Adventure.* New York, NY: Red Wagon Books, Harcourt, Inc.

Lester, A. 1998. *Alice and Aldo.* Boston, MA: Houghton Mifflin.

Lichtenheld, T. & Fields-Meyer, E. 2011. E-mergency! San Fransisco: Chronicle Books.

Most, B. 2000. *ABC T-rex.* San Diego, CA: Harcourt.

Rosenthal, A.K. & Durand, D. 2011. *Al Pha's Bet*. New York: Putnam Juvenile.

Sierra, J. & Sweet, M. 2009. *The Sleepy Little Alphabet*. Knopf Books for Young Readers.

Sneed, Bradley D. 2002. *Picture a Letter.* New York, NY: Phyllis Fogelman Books, imprint of Penguin Putnam, Inc.

Walton, R. & Miglio, P. 1998. *So Many Bunnies: A Bedtime ABC and Counting Book*. New York: Lothrop, Lee & Shepard.

Alliteration

Edwards, P.D. 1996. *Some Smug Slug*. Ill. H. Cole. New York: HarperCollins.

Edwards, P.D. & Cole, H. 1997. *Dinorella: A Prehistoric Fairy Tale*. New York: Hyperion.

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Lindbergh, R. & Pearson, T.C. 1997. *The Awful Aardvarks Go to School.* Ill. T.C. Pearson.

Most, B. 1998. *A Pair of Protoceratops.* San Diego, CA: Harcourt Brace.

Most, B. 1998. *A Trio of Triceratops.* San Diego, CA: Harcourt Brace.

Always Time for Poetry and Verse

Apperley, D. 2002. *Good Night, Sleep Tight, Little Bunnies.* New York, NY: Scholastic, Inc.

Church, C.J. 2002. *Do Your Ears Hang Low?* New York, NY: The Chicken House, Scholastic Inc.

Cotton, C. & Cartwright, R. (2002). *At the Edge of the Woods.* New York, NY: Henry Holt & Company.

Crews, N. 2004. *The Neighborhood Mother Goose.* New York: Greenwillow Books.

Davies, N. & Hearld, M. 2012. *Outside your Window: A First Book of Nature*.

Florian, D. 1999. *Laugh-eteria*. San Diego, CA: Harcourt Brace.

Florian, D. 2012. *Poem Runs: Baseball Poems and Paintings*. New York: Houghton Mifflin Harcourt Publishing Company.

Florian, D. & Neubecker R. 2012. *Shiver Me Timbers! Pirate Poems & Paintings*. New York: Beach Lane Books.

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Mitton, T. & Parker-Rees. 2002. *Down by the Cool of the Pool.* Ill. Guy Parker-Rees. New York, NY: Orchard Books, imprint of Scholastic Inc.

Montgomery, M. & Montgomery W. (2002). *Over the Candlestick.* Atlanta, GA: Peachtree Publishers.

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Rose, D. L. & Munsinger, L. (2002). *Birthday Zoo.* Morton Grove, IL: Albert Whitman & Company. .

Rotner, S. 2001. *Parts.* New York, NY: Walker & Company.

Ruddell, D. & Rankin, J. 2009. *A Whiff of Pine, a Hint of Skunk*. New York: Margaret K. Mc Elderly Books.

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Playing With Words

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*Book list provided by Lisa Patrick, PhD and Patricia Scharer, PhD, The Ohio State University

January 26, 2017

University Programs Accredited by IDA

Antioch University Midwest (Ohio)

Dyslexia Certificate Program

Clarion University (Pennsylvania)

M.S. Special Education with Reading Concentration

College of Mount Saint Joseph (Ohio)

Reading Endorsement; Master of Arts in Reading Science

Colorado College (Colorado Springs, Colorado)

Master of Arts in Teaching: Literacy Intervention Specialist Program

Dallas Baptist University (Texas)

Master of Arts in Teaching: Multisensory Instruction

Drexel University (Pennsylvania)

M.S. Special Education with Multisensory Reading Concentration

Fairleigh Dickinson (New Jersey)

Orton Gillingham Teacher Certificate

Fairfield University (Connecticut)

Certificate of Advanced Study (6th year), Reading and Language Development

Gordon College (Massachusetts)

Master of Education: Reading Specialist

MGH Institute of Health Professions (Massachusetts)

Certificate of Advanced Study in Reading; Master of Science in Speech-Language Pathology: Reading Concentration

Mississippi College (Mississippi)

Master of Education: Dyslexia Therapy

Notre Dame College (Ohio)

Reading Endorsement

Ohio State University (Ohio)

Dyslexia Certificate: Structured Literacy Strand

Saint Joseph's (Pennsylvania)

Master of Science in Special Education: Urban Teaching Residency and Teacher Scholar-High Incidence programs

Simmons College (Massachusetts)

Master of Science in Education: Language and Literacy; Education Specialist Degree: Language and Literacy

Southeastern University (Florida)

Bachelor of Science in Elementary Education with Reading/ESOL Endorsements Bachelor of Science/Master of Education in Exceptional Student Education with Reading/ESOL Endorsements

Southern Connecticut State University (Connecticut)

M.S. in Reading

Southern Methodist University (Texas)

Master of Education in Reading and Writing

Teachers College, Columbia University (New York)

M.A. Reading Specialist

University of Dayton (Ohio)

Undergraduate (Early Childhood Education, Middle Childhood Education, Intervention Specialist) Graduate Reading Endorsement

University of Florida (Florida)

Unified Elementary Proteach Dual Certification

University of Central Arkansas (Arkansas)

B.S.E. Elementary Education, M.S.E. Reading

University of Southern Mississippi (Mississippi)

M. Ed. in Dyslexia Therapy

William Carey University (Mississippi)

Master of Education: Dyslexia Therapy

West Liberty University (West Virginia)

M.A. in Education, Reading Endorsement

NAACP

National Association for the Advancement of Colored People

Anchorage, Alaska Branch – Kevin McGee, President

January 24, 2017

Senator Hughes
Senate Education Committee
Capitol Building
Juneau, Alaska 99801

Representative Drummond
House Education Committee
Capitol Building
Juneau, Alaska 99801

Re: Support for SB 27 and HB 94 for a Reading Proficiency Task Force

Dear Senator Hughes and Representative Drummond,

Please consider our support for new bills SB 27 and HB 64 to create a legislative task force to recommend changes for improving reading and addressing dyslexic students. We believe the bills may help raise the academic proficiency of Alaska public school students. A plan for advancing literacy in public schools in Alaska both to meet State standards and to rise into the ranks of the rest of the U.S. is urgently needed. Senate Bill 27 and HB 64 are a step toward that plan.

Introductions

By way of introduction, the Anchorage branch of the National Association for the Advancement of Colored People (NAACP) comprises long time Alaskan parents and grandparents deeply concerned about the poor track record of literacy achievement among Alaska public school students. With other groups of concerned citizens and parents, we are alarmed by chronically low reading and writing scores across the state. We and the Alaska Branch of the International Dyslexia Association (AKBIDA), Decoding Dyslexia, and the Alaska chapter of Literate Nation have first-hand experience with schools' slow response to students who find it difficult to learn to read.

To be clear at the outset, the Anchorage NAACP's scope of concern is not limited to Anchorage kids or to brown kids or to poor kids. We are concerned about bad reading and math skills generally among the 128,000 public school students in the State. We support SB 27 and HB 64 as the Legislature's step toward a remedy.

An Urgent Problem

In Alaska, poor academic achievement in general and low literacy skills in particular pose an urgent problem. Among Alaska's 128,000 public school students, almost two-thirds are behind in English language and mathematics. The attached graphs of Alaska Measures of Progress 2015 results among school districts show that 65 percent of students taking the test did not meet State standards. Applying that rate to all public school grades, indicates that some 80,000 kids are behind. That is not news, however. For many years, Alaska has consistently scored among the worst-performing states on key national reading and math tests. (Please see illustrations of National Assessment of Educational Progress in the attachments.) These bottom-of-the-barrel outcomes appear entrenched. Both the poor outcomes themselves and the absence of improvements over the years indicate a system of public education in Alaska that in our view inadequately serves students and does not meet the law.

Poor academic performance among Alaska students appears systemic and ubiquitous. It is not just a rural problem or a poor people problem or a brown people problem. Although we know, not surprisingly, that higher-income students generally perform better, in only a minor proportion of schools statewide do most students meet State standards. (See the chart of districts' 2015 AMP performance in the attachments.) Furthermore, white Alaska kids have consistently managed to score below other white kids in the U.S. Although we applaud the many bright spots of student achievement, we are concerned about the overall low level of reading, writing and math performance that characterizes Alaska public schools.

The urgency of low academic performance has recently become even sharper in light of the State's financial prospects. In the past, high State oil revenue may have made it easier to infer that improvements in education might be forthcoming. And perhaps the plentitude of good blue-collar jobs obscured the value of education in economic competition. However, the decline in both the price and production of oil strips away those two masks. Now, the decline of State revenues shows that educational improvements are more necessary and at the same time less likely. We think that neither hope and patience nor the prospect of high State revenues any longer will lead to gains in academic performance in Alaska.

These days Alaska needs to plan what it will do differently. We know that the Department of Education shares that view, based on its "Alaska State Literacy Blueprint" (2011). Among other things, for example, the Department outlined the role of certified reading or literacy specialists and collaboration with universities regarding teacher preparation in overcoming low literacy proficiency. And we are happy to learn that the Department will make its own committees to make recommendations this year for educational improvements.

The Objective

We want Alaska public school students to rise quickly into the ranks of the rest of the U.S. in reading, writing and math. We will know the goal has been achieved when we see significant gains on the order of a grade-level improvement in statewide scores as measured by the National Assessment of Educational Progress. In addition, we will know that Alaska's public school system is adequate when students' performance rises to the State's own grade-level academic standards. SB 27 and HB 64 may be part of the remedy.

Accountability

We are bringing the urgent problem of low academic proficiency to your attention because we believe the Legislature is accountable for academic proficiency among public school students. The good news is that under the State Constitution the Legislature is responsible for public schools. The bad news is that you are also accountable for them. Through your hands pass more than one billion dollars per year to pay for

public education. The Legislature has the authority to pay for and govern Alaska's public schools and in turn it is accountable for the result.

As background, we understand that families and individuals carry the greatest responsibility for children's education. In fact, our organization acknowledges that and works hard to support families in that regard. We know that schools can only affect what goes on within their four walls, and consequently have limits on their accountability for academic performance.

Nevertheless, academic improvement plans that may come from a task force to be created by SB 27 and HB 64 are important, and this discussion is aimed at how they may help the Legislature meets its obligations to public schools. We know that schools hold many of the keys to academic improvements even in the face of poor student preparedness because we have seen examples of those improvements from around the U.S. and in Alaska.

As further background, please know that recently we have reminded many State policy makers and school budget managers about their responsibility. We have brought it to the attention of the Governor by way of letters and at several meetings in the last two years. We spoke with Commissioners Hanley and Johnson and their top staff on several occasions as well, sometimes with the Governor in attendance. We have met with a number of legislators and their aides, reminding them of their obligation, showing them the challenge of low scores, and asking for legislation to improve the public schools, pre-K programs, and reading instruction in particular. We have spoken before the Board of Education about the need to enhance literacy education as some other states have done; we will speak to the Board again.

In our initial efforts to trace accountability for public school academic performance, we've discovered two things, as follows:

- The State has not stepped out in front to develop its own urgent, home-grown approach and to lead with its own initiatives. We've seen no strongly-voiced vision yet from the State for dramatically raising reading and math skills of tens of thousands of kids. Perhaps SB 27 and HB 64 will change that.

- The second discovery has to do with accountability as it is associated with the allocation of money. With some exceptions, neither the Department, the school districts, the Governor, nor the Legislature justify their pattern of spending more than one billion dollars of State money annually for school operations on the basis that their allocation maximizes the math and reading performance of more than one hundred thousand kids. We've seen no State or district budgeting plan that targets dramatic improvements in reading and math skills of our students. Few of the many State and local government position-holders responsible for sending money to public schools has acknowledged to us that they bear responsibility for urgent academic improvements. Perhaps SB 27 and HB 64 will change that.

By way of example, in the wake of the AMP scores and the proposed cuts to pre-K budgets last spring we asked Commissioner Hanley and later Dr. Johnson what the Department of Education would do differently to raise academic proficiency. Neither had an answer.

At the local level in Anchorage, we have also approached the School District, the municipal Assembly, and the teachers' union several times. Those groups share accountability for adequate instruction because they influence school budgeting. We've asked them to consider focusing on academic achievement in these times of program reductions. We are proud of our schools and we are on the side of the teachers and the School District. But we are not above suggesting priorities for them to re-focus on. For example, we asked them to develop a stronger teacher corps, that is, more teachers with stronger skills.

In addition, we've started approaching the University of Alaska regarding improving teacher training. Although the conversation is off to a rocky start, we will continue asking the colleges of education how they will improve K-12 literacy instruction by way of stronger teacher training. The University's colleges of education hold several keys to improved academic performance of K-12 students, we believe. By way of their charters and their budgets, the colleges are in our view accountable for the effectiveness of the teachers they produce.

An illustration of a vision without accountability for academic proficiency was provided at a meeting in Anchorage in November. Education Matters, Inc. was good enough to sponsor discussions among almost 100 educators and education advocates about their expectations for high school graduates in the 21st century. People in the room ranged from teachers, principals and administrators to politicians and policy advocates. When asked to provide their profile of a high school graduate, they offered a long list of social and personal habits which are not measured but would put the Boy Scouts to shame. Literacy and academic skills of graduates, however, which can be measured, were lost among the virtues for which the educators' could not be held accountable. Perhaps it is little wonder Alaska kids' reading scores on average have not risen if educators don't judge their own performance by it.

We are glad to know that the mission of the State Board of Education and Early Development is to "ensure quality standards-based instruction to improve academic achievement for all students." Alaska's academic standards are fine, in our view, and instruction based on them certainly is critical for academic gains. However, we are afraid that the Board's mission is far from accomplished and we were disheartened to see no plan and no action for catching up on academic achievement.

To understand that view, please consider some recent comments and budgeting decisions from the Governor. Last year Governor Walker published an opinion piece outlining his concerns about public education (see it attached). The NAACP Anchorage and the Alaska Reading Coalition applaud his intent to adequately fund education, broaden the conversation about education and do four things differently. Those improvements were strengthening early education and computer networks, reducing expenses, and helping school districts retain students. The Governor said he is a fan of vocational education and understands Alaska's low academic ranking among the states. We were certainly glad to read that in his article

On the other hand, the Governor has not walked the talk about improving education. In both of his first two years in office, Governor Walker and the Department of Education led the way in reducing public school funding. The Legislature got the message that less money for schools was all right and then reduced school funding even further. The Department also proposed to greatly reduce Alaska's limited but successful pre-K programs. However, nowhere have we heard from the Governor or the Department that dramatically raising literacy skills of tens of thousands of Alaska students is urgent. And that is in spite of the fact that reading, writing and math skills are critical to the vocational education and high school retention improvements that the Governor likes. Nowhere has he asked what Alaska or schools need to do differently to raise up academic proficiency among the 80,000 students who are behind.

Turning in your direction, our questions for the Legislature are what is your vision for Alaska public schools, and what will you do differently to fulfill that vision? What will the Legislature do to raise the reading and writing and speaking skills of 80,000 students by a grade level? Perhaps SB 27 and HB 34 will answer those questions.

The Moore Decision

To focus tightly on accountability, please consider the view that the State is legally responsible for raising

student academic proficiency. The Alaska Constitution, VII §1, requires the Legislature to maintain a system of public education, and the State courts require it to be adequate. In the view of many states' courts, adequacy is to be judged by academic results rather than simply "inputs."

In her conclusions regarding Alaska educational adequacy in the case of *Moore, et al. v. State of Alaska* in 2007, Judge Gleason said the Alaska Constitution set some limits on school management. The judge pointed out (page 175) that DEED's academic standards formed a "constitutional floor" of an adequate education. She added on page 188 that

> "If generations of children within a school district are failing to achieve proficiency, if a school or a district has not adopted an appropriate curriculum to teach language arts and math that is aligned with the State's performance standards, if basic learning is not taking place for a substantial majority of a school's children, then the Constitution places the obligation upon the Legislature to insure that the State is directing its best efforts to remedy the situation."

Consider our view that if academic performance outcomes today were a criterion for judging the adequacy of public education in Alaska under the law, the public education system would be found inadequate. Almost two-thirds of students did not meet State's English and math standards according to recent statewide tests, Alaska Measures of Progress. A similar proportion did poorly in the National Assessment of Educational Progress as it has for years (see the attachments.) Alaska students' language and math skills rank near the bottom compared to other states, and a relatively low proportion of students are college or career ready. SB 27 and HB 64 may help the Legislature see the problem and turn it around.

Objections and Distractions

We've learned to expect objections and distractions from very smart, experienced, well-meaning people. Please do not let them put you off. Please avoid the temptation of attractive one-offs, nifty experiments, the allure of more parental choices, and policy fads like charter schools and vouchers. In other successful states, none of those have demonstrated that they can lift academic achievement at the scale of tens of thousands of kids. Focus instead on big, broad results and evaluate efforts on their "outcomes." Don't let the bottomless arguments over "inputs" interfere. Make education leaders responsible for their claims.

We've learned to expect several kinds of objections to our insistence on better reading scores. You may wish to consider them beforehand.

First, long-time professional educators, whether in the teacher organizations or State government, sometimes object that we are not smart enough about the legal and student challenges they face and about pedagogy to propose solutions. In response, we would ask them how they plan to raise the proficiency of 80,000 Alaska kids after decades of stagnant scores. You will find that the professional educators in Alaska have developed no statewide plan for dramatic improvements in reading proficiency.

Secondly, you may hear some in the school districts, the Department of Education and Legislature object that our proposals will cost them money. In response, we would ask them for a counter-proposal, including funding or not, that still will meet the goal of rapid, dramatic, reliable statewide academic improvement. You'll find that people's fears about money stand in the way of 80,000 kids' effort to read.

Thirdly, the Department of Education and school boards sometimes say not to worry, that they are taking on the problem with wonderful tactics and have bright spot examples to prove it, and that we should support their current efforts We are thrilled by their successes and promising methods. But we've

learned those examples are more akin to bailing a boat with a spoon than to the large-scale approaches needed to turn around the trajectories of 80,000 Alaskan students who are behind. In addition, some of the very leaders that claim they are addressing the problem are at the same time proposing reductions to pre-K and classroom instructors.

Dyslexia

We want State law to address dyslexia. Our parent coalition's first-hand experience and research shows that dyslexia is a major source of shortcomings in learning to read. Dyslexia is an inborn disability affecting a child's capability to de-code the symbols necessary for reading and writing. The problem is found among both affluent and poor kids alike and extends into adulthood. Dyslexic kids and their families face tremendous hurdles. As much as 15 percent of the student population is likely dyslexic. However, our experience is that Alaska public schools do not recognize dyslexia yet and are not equipped to handle the challenge. Consequently, families and their students continue to suffer and Alaska's overall reading accomplishments remain low.

There is good news, however. Most dyslexic kids are otherwise bright, motivated and hard-working. With modern techniques and a lot of focused work, virtually all dyslexic kids can learn to read. Please see the attachments for reports of methods and successes. We believe that public schools are obligated to teach dyslexic kids to read and that they can do that with the proper techniques, once the challenge has been taken up.

In fact, that was the main story at our meeting in Juneau last spring with Governor Walker, Lieutenant Governor Mallot, members of the Governor's staff and two of your Department administrators. The most important member of our visiting group was a young dyslexic student. He told the Governor the story of his family's plan to leave Juneau this year in order for him to attend an Outside school that will teach him how to read. With that as background, we will ask you to sponsor regulations that recognize dyslexia.

In order to address Alaska's chronically low reading proficiency among school children, please consider a fundamental re-approach to teaching reading. We know that the Department has attempted to address Alaska's stagnant reading scores through the years. However, the most important changes have not filtered down to the classroom and do not deliver the instructional intensity and dose needed to improve reading proficiency scores statewide.

We ask you to lead the charge to design, implement and fund a five year plan for high quality reading and writing instruction aimed at our lowest-proficiency readers. The plan's objectives would be doubling the number of Alaskan students performing at the advanced reading proficiency levels and raising the majority up to meeting the State's English language standards.

As technical background, evidence-based reading instruction starts with foundational reading skills. They include phonological and phonemic awareness, letter-sound correspondence, phonics, rapid automatic naming, vocabulary, oral language and working memory (Cunningham, 2001; Connor, Alberto, Compton, & O'Connor, 2014; Moats et al., 2010). Although the importance of these skills in teaching reading may be widely acknowledged in Alaska, too many teachers lack the content knowledge and practical skills to teach reading well. (That is to say nothing about the need to raise the reading-teacher-to-pupil ratio for the 80,000 students who read poorly.) Furthermore, there is wide variation among districts' capacities to ensure that teachers become highly knowledgeable and skilled in teaching reading. We refer you to the "International Dyslexia Association Knowledge and Practice Standards for Teachers of Reading." It articulates the scientific knowledge considered foundational for reading instruction to let all kids, even those with dyslexia, become reading-proficient (Moats et al., 2010). You'll find full references for the citations in the attachments.

Consider as well that high quality reading and writing instruction for the lowest proficient readers frequently raises proficiency for other readers. Evidence-based reading and writing instruction for students with dyslexia by way of improvements in teacher preparation and professional development is expected to raise the reading proficiency levels for all of Alaska's pupils. Research advances elsewhere provide a consensus about how both atypical and typical children learn to read and their overlapping instructional needs. While the speed of learning and dosages of instruction may vary among children, they are similarly well-tuned to direct, systematic, and explicit instruction (Dehaene, 2009). This form of instruction is identified as critical in preventing reading difficulties such as those frequently associated with dyslexia (Connor et al., 2014). We understand that if Alaska meets the instructional needs of students with dyslexia, all students in Alaska will reap the benefits.

Consider that several regulatory and legislative approaches can provide opportunities to transform Alaska's chronically low scores in reading and writing proficiency and put Alaska's children on par with their peers in the Lower 48. The plan should consider regulatory and legislative approaches described in academic reports cited in the attachments.

After studying other states, such as Connecticut, Florida, Massachusetts, and North Carolina, we have found it easy to conclude that Alaska can improve reading proficiency as well. An example of the necessary commitment is demonstrated by Connecticut's plan to eliminate the achievement gap. Briefly, Connecticut promoted best practices in early literacy by encouraging research to determine specific reading instruments coupled with professional development (Gillis, 2012). Connecticut is now publishing the results showing double-digit percentage gains in reading grade level for first, second and third grade students (Coyne & Oldham, 2015). On a smaller scale, we also have seen that Erie Elementary School in Colorado implemented similar professional development for teachers and nearly doubled the number of students at the advanced reading proficiency level (Sauer, 2013). You may wish to consider how poor communities in Charlotte, Boston and Tampa have managed dramatic improvements in national reading scores and now rank among the best in the U.S.

Dyslexia law. As the first part of an Alaska reading plan, we will ask that Alaska join other states having a dyslexia law. Please see the table below. Alaska's reading plan could produce similar results if it were based on dyslexia laws that already benefit students with dyslexia in the United States. Those laws provide for screening, definition, interventions, pre-service teacher preparation, in-service professional development, and accommodations or a dyslexia/literacy pilot. Comprehensive efforts elsewhere involve at least three of those six elements carried out through legislative or regulatory efforts (Youman and Mather, 2015).

Dyslexia laws have proliferated in recent years and Alaska is one of the few states without one. We refer you to the fall 2016 issue of the International Dyslexia Association's journal "Perspectives on Language and Literacy." Please see the journal's articles focused on eliminating teacher education gaps for children with dyslexia (Carreker & Mccombes-tolis, 2016).

Please also see a table in the attachment summarizing the recent legislative accomplishments of other states. Nineteen have defined dyslexia, for example. Seventeen states offer training for teachers in dealing with dyslexic students. Thirteen states have a larger percentage of rural residents than Alaska does, according to NAEP, and have higher 2015 fourth grade reading scores. Ranked in order of population size, those having scores higher than Alaska's score of 213 and with a larger percentage rural population are as follows:

228 Wyoming
224 Iowa

232 New Hampshire
225 North Dakota
217 Alabama
228 Kentucky
220 South Dakota
218 Arkansas
225 Montana
214 Mississippi
216 West Virginia
230 Vermont
224 Maine

Four of the 13 more-rural states, in italics, already have dyslexia laws or handbooks.

Implement disabilities act. Secondly, as part of an Alaska reading plan we will ask for implementation of the guidance that clarified regulations under the "Individuals with Disabilities Education Act (IDEA)" in the October 2015 "Dear Colleague" letter from the United States Department of Education (Yudin, 2015).

Strengthen licensure standards. Thirdly, the Alaska reading plan should lead the way toward Department of Education and University of Alaska programs and State regulations for improving teacher preparation. Those regulations should ensure that significantly improved preparation in reading instruction is delivered by the University of Alaska colleges of education faculty. Those improvements would involve scientifically-evidenced faculty expertise and providing pre-service teacher candidates with a minimum of 12 to 15 credit hours in foundational reading instruction. Improvements in teacher preparation also are likely to require regulations for research-based teacher licensure exams in reading. One exam would be required for certifications that include teaching reading. A more advanced licensure exam would be required for those seeking certification as special educators or reading specialists. Massachusetts, with some of the best improvements in reading, offers an excellent example to consider. We hesitate to say how to run educational programs, but we don't see their leaders making improvements. Perhaps SB 27 and HB 64 will change that.

The Greatest Stake

Even more kids, not necessarily just those suffering dyslexia, are behind in reading because they arrive in class poorly prepared. We know that many kids are abused, neglected, face crises, undergo trauma, are homeless, or have parents who are illiterate. In an Anchorage elementary school we visited, the principal had arranged sleeping pads in safe places for his students. He knew exactly how many were in crises each day. As we all know, such conditions contribute to poor reading skills everywhere, from Alaska to Florida. It is the mission of public schools to overcome those disadvantages.

Using Anchorage School District as an example, more than 24,000 kids there are behind in reading. In spite of that, the district eliminated four or five dozen instructor positions this year. Those students are not likely to ever catch up.

To take another example from Anchorage, consider some middle school math classes. One teacher has 27 kids per class, a typical pupil:teacher ratio planned by the Anchorage School District. The students started their school year still learning the multiplication table and were about three grade levels behind on average. The District provides no extra instruction and has no plans in that direction. On the Alaska

Measures of Progress test in 2015, 85 percent of the school's eighth graders did not meet the State math standards. Those kids likely will not catch up, but will leave high school still way behind in math.

Alaska school kids are behind academically and are becoming economically uncompetitive. To turn that around is the responsibility of the Legislature. SB 27 and HB 64 are a step in the right direction.

The good news is that we know how to teach poorly prepared kids to read. Other states have shown that it takes modern, data-driven methods and direct instruction on a large scale. You'll find success stories in cities like Tampa, Charlotte and Boston which have dramatically raised reading scores. You'll understand the methods from the results of reading research labs in Connecticut and Ohio. And here in Anchorage, the school district applies a system of screening, progress monitoring and calibrated instruction for many readers who are behind grade level. We understand that it is very effective where it is applied correctly, although we've learned it is applied less widely than it could be. We believe every kid can learn to read.

To effectively reach and teach the large numbers of poor readers with these effective methods, however, requires numbers of expert reading teachers. On that score, the news is not good. That is why we will suggest that the task force created by SB 27 and HB 64 look to other states for success stories to bring home to Alaska. We'll suggest that the task force plan how to deploy a cadre of expert reading instructors needed to raise up the reading skills of 80,000 Alaska students who are behind grade level. To help with that, we also will suggest the task force consider arranging with the University of Alaska's colleges of education to turn out hundreds more teachers trained in modern reading instruction methods.

Although SB 27 and HB 64 are focused on reading, and correctly so, the problem of low academic achievement is even larger. On the Alaska Measures of Progress test in 2015, Alaskan students scored just as poorly on math as they did in reading. To raise the reading and math proficiency of Alaska students may take serious, broad, voluntary high-quality pre-K programs as well as hundreds if not thousands more skilled elementary and secondary school teachers of reading and math. Examples from successful states show that hard work within the public schools is mainly responsible for their dramatic improvements in proficiency among millions of kids.

Next Steps for Instruction Improvement

The NAACP urges your education committees to recommend passage of SB 27 and HB 64 this session. We also urge the committees to improve the bills by amending them as follows:

- Provide for more, and more-expert reading instruction in public schools in 2017-2018.
- Require schools to demonstrate significant improvements in reading scores.
- Require the reading proficiency task force to hire professional experts, from out of state if necessary, to help conduct research.
- Approve a fiscal note to fund the task force including those professional experts.

In addition, we ask the education committees to hold hearings in parallel with HB 27 and HB 64 and to recommend State general fund budget increases to provide significant improvement in reading and math proficiency in schools statewide beginning FY 2017-2018.

Sincerely,

Mike Bronson
Education Committee
NAACP Anchorage Branch

for

Rev. W. Greene, Pastor
Education Committee
NAACP Anchorage Branch

Attachments

HB 64

By Rep. Drummond

Task Force

Reading Proficiency & Dyslexia

[BLUE tabs]

December 12, 2014

Good morning. I appreciate the UA Board of Regents for listening to the voices of Alaskans. Thank you. Further, I would like to thank Vice President Thomas and education Deans Lo, Mo|rot|ti, and Ryan and I'm sure many more people for their hard work on two Documents: Shaping Alaska's Future Theme II, Data Summary and The Plan for Revitalizing Teacher Education in Alaska.

My name is Posie Boggs I represent my family. I volunteer intensely for three organizations highly concerned about literacy in Alaska. They are Literate Nation Alaska Coalition, the Alaska Branch of the International Dyslexia Association, and Decoding Dyslexia Alaska. (50").

"We know how to teach reading. We're just not doing it."
A decade of reading failure, as evidenced by dismal NAEP 4th and 8th grade reading proficiency levels, can be cured by a decade of commitment to the science of reading and reading instruction. It is incumbent upon our UA system to ensure that our pre-service teachers via preparation and our current teachers via professional development are highly knowledgeable and skilled teachers of reading the minute they hit the ground in any classroom.

How do we know if the UA departments of education programs are preparing teachers well to teach reading? By adding, a laser focused metric assessing the reading and literacy courses mentioned on page 6 of the progress report On Productive Partnerships with Alaska

Schools so that you, they UA Board of Regents have a quality measure.

Our UA pre-service teachers must pass a Basic Reading Instruction Competence Teaching Assessment (BRICA) such as the Massachusetts Tests for Educator Licensure MTEL Foundations of Reading (90) test with flying colors. Such a competency exam is the embodiment of the fact that "We know how to teach reading to 95-98% of children. We're just not doing it."

Alaska's decade of reading failure cannot be cured without a rigorous outcome metric to ensure pre-service teachers graduate qualified and ready to teach reading on their first day of hire. "We know how to teach reading. We're just not doing it."

LNAKC
Literate Nation Alaska Coalition
Anchorage, Alaska - Posie Boggs, Alaska State Team Captain

September 17, 2015

Literate Nation

Alaska State Board of Education & Early Development
801 West 10th Street, Suite 200
PO Box 110500
Juneau, AK 99811-0500

Re: **Proposal to Eliminate Reading and Writing as State Standards Terms in 4 AAC 06**

Dear State Board Chair and Board Members,

We strongly disagree with replacing the terms "reading and writing" with the term "English language arts" in 4 AAC 06.

What LNAKC wants

Literate Nation Alaska coalition once the state regulations to continue requiring the department to report each student's respective reading and writing scores separately on the statewide test.

Why We Want Reading and Writing Reports to report each student's respective reading and writing scores separately on the statewide test.

The state of Alaska has a historical credibility problem in the reporting of reading proficiency and in setting very low standards in reading for our students. Rolling up reading and writing into English Language Arts (ELA) does not repair Alaska's credibility problems. Transparency does.

Parents are watching carefully.

Parents simply want to know their students reading, writing, and oral language achievement reported separately. English Language Arts has always been an incomprehensible term to parents. Parent want *solid* separate information on reading, writing, and oral language. In fact, they may even want the component skills broken down into subskills such as decoding, fluency, and comprehension so that they can communicate to tutors they must likely hire due to Alaska's low reading achievements. A similar case exists for writing.

More critically, parents with students being evaluated for special education under the IDEA law will not have the de-aggregated empirical scores to establish eligibility. ELA is not a standard term on the evaluation tests given to such students. Reading levels based on age or grade are.

Parents with students in special education with reading, writing, and oral language goals will not have true data comparable to evaluate if their students are making progress on those goals. IEP teams will need specific data to back up their progress measures on a state level to gauge if they are meeting student goals.

Mailing Address: 6223 Geronimo Circle, Anchorage, Alaska 99504-1659
Phone (907) 727-5077 Fax (907) 337-0460
Email: posieboggs@literatenation.org; Website: literatenation.org/states/AK/

LNAKC

Literate Nation Alaska Coalition
Anchorage, Alaska - Posie Boggs, Alaska State Team Captain

Reporting only ELA scores to teachers, schools, districts, and the state legislature means that no empirical measurements are available to know if programmatic or instructional changes are needed or have been effective. Teachers would not know whether they are effective teachers of reading or teachers of writing.

Innovating districts will not have the data needed to evaluate empirically the outcomes of those innovations.

Given that the National Assessment of Educational Progress (NAEP) reports separate reading and writing data, Alaska would have no direct comparison to other states. Without a direct comparison reported, Alaskan families, as has been the case in the past from previous Alaska SBA results, would have no way to compare their students reading and writing achievement to students in other states. Again, should parents have to leave the state for work they may think their student is proficient in ELA and find out their student does not meet proficiency standards in another state.

In a climate that demands transparency, it does not bode well for the State of Alaska to roll up reading and writing into ELA. It must be transparent that enough test items are in the AMP to produce an empirically independent data point for reading and writing achievement in our state.

Reading achievement must be revealed independently because it is extremely important for the legislature to understand the costs of low reading levels that impact the economics of Alaska. Reading levels are correlated directly to the number of welfare participants, correction inmates, and health care costs in Alaska. For the legislature to have an understanding of the cost of poor reading levels is one of the most critical data points in these difficult economic times.

Sincerely,

Posie Boggs

Posie Boggs
Alaska State Team Captain
Literate Nation Alaska Coalition
907.727.5077

Cc: NAACP
Governor Walker
Chair, Senate Education Committee
Chair, House Education Committee

December 10, 2015
Dear Alaska State School Board:

However important this change in regulation is, we believe we have a larger problem in Alaska. That is, the facts surrounding teacher preparation in reading instruction in our state and nation is weak. One such factor is the Peter Effect which is based on the biblical story of the Apostle Peter, who when asked for money by a beggar replied that he could not give what he himself did not have (Acts 3:5). Referencing the work on the Peter Effect as applied to the notion of teacher preparation by Binks-Cantrell et al the following statistics and facts are alarming:

- 54.3 % of 195 teacher candidates were classed as unenthusiastic about reading
- Only 25.2% of teacher candidates reported unqualified enjoyment of reading
- Poor classroom instruction is due to poor teacher knowledge of the essential components of early reading instruction and is a major cause of reading failure.
- Teacher educators who lack an in-depth understanding of the essential components of early reading instruction were unable to give this knowledge to their teacher candidates. (Binks-Cantrell et al, 2015)

- Even In states that require passage of a Reading instruction competency exam for initial licensure, only about 60% of the teacher candidates pass the exam on the first try. This indicates that even in states with high expectations of entry teacher's reading instruction knowledge, university programs are not preparing the candidates well.
- Teacher educators who they themselves received professional development in professional development programs geared to research-based reading instruction for a minimum of three years were significantly better at passing on this knowledge to their teacher candidates.

We want the State of Alaska Board of Education to show us how Alaska is going to address the above teacher preparation n factors and ensure that every Alaskan child has a highly knowledgeable and skilled teacher of reading in K-3rd grade and reading specialists teaching those older students who are not proficient whether the children have disabilities or not. We want to see a plan that moves reading instruction in Alaska forward by providing teachers and teacher educators with what they need to be highly knowledgeable and skilled teacher of reading and reading specialists. We cannot

rely on the preparation of the many colleges of education outside of Alaska who prepare over 60% of our teachers and we can only encourage wait the University of Alaska system to catch their teacher educators up in reading science so they can pass that knowledge on to Alaskan prepared teachers. It may be revealing to have a random sample of University of Alaska prepared newly graduated teachers sit for the exams that Mass. and Connecticut require of K-3 teachers of reading if there is not an understanding of UA's teacher preparation programs.

We believe one-step forward is to place in regulations the definitions of the terms dyslexia, dyscalculia, and dysgraphia so teacher educators and teacher candidates in Alaska know the importance of these terms. We also know that teacher educators and teachers who can teach these children to read will likely have the knowledge level to teach any Alaskan child to read.

We believe that until teacher educators and their candidates, teacher professional development educators and their educators are all equally prepared to be highly knowledgeable and skilled teacher of reading and reading specialists then teacher

evaluation for pay or position are invalidly measured by any test of student outcomes such as the new AMP measures. Teachers simply cannot teach what they themselves do not know. Teacher educators cannot pass on the incredibly important scientific knowledge of reading instruction to teacher candidates if they too simply do not know. Further teachers who are not enthusiastic about reading and reading instruction cannot pass on to Alaskan children the importance of and love of reading that they need to be successful in our state.

Hello,

Thank you for taking public comment before starting your meeting. It is greatly appreciated that Alaska State Board of Education is eager to hear from Alaskan citizens.

My name is Posie Boggs and I am a long time Alaskan with four adult children who participated in public school, private school, and homeschool.

I also represent to nonprofit organizations, Literate Nation Alaska Coalition, The Alaska Branch of the International Dyslexia Association, and a grassroots organization named Decoding Dyslexia Alaska.

I would like to speak to teacher quality and the need for teacher certification exams that reflect highly qualified teachers of reading, especially in K-3rd grade but also across content areas.

Alaskans cannot tolerate the serial failures in literacy decade after decade. Being literate seems to me to be a right of all Alaska students and the knowledge to teach literacy, especially reading to our students seems to me a basic right for our teachers. Teachers should have a right to the foundational reading knowledge and skills that produce a literate child. According to Doctor Roche Chet see, Harvard a highly skilled kindergarten teacher justifies a salary of $320,000 per year and it reflects a deep knowledge of reading development, reading literacy, and a highly skilled and respected professional.

Reading failure directly drives dropout rates and our statistics that the cost of one cohort of one year of dropouts is in the millions.

As you know in 2000 the national reading panel identified five imperative research research-based concepts that drive literacy and reading. You know they are phonemic awareness, deep knowledge of the alphabetic principle, fluency with text, vocabulary, and comprehension.

I also understand that the State of Alaska plans or is considering using ETS' Praxis I and II, test numbers 5038 English language arts content and knowledge elementary ad, 5039, 5041, and 5044.

I was curious if these tests covered the big five who said" I emailed Dr. Sandra Stotsky. Who agreed with me that "I do not believe there is more than approximately a 5% content match that reflects how to teach reading based on the proposed or past Alaska Standards?"

I want teachers in Alaska to be well supported in undergraduate and via PD to be able to pass and reading instruction exam as rigorous as the MTEL

5 minutes

Chair Cox, Commissioner Hanely, and Members of the AK School Board, thank you for taking my testimony today. For the record, this is Posie Boggs and I am testifying today as a Dyslexia specialist in private practice with a Masters of Science in educational diagnostics and over 20 years of experience teaching Alaska's children and adults who struggle to read and have a variety of educational experiences to read, write, spell, and do math.

I am testifying on regulation 4 ACC 06.713, Early Literacy Screening in regards to allowing the Commissioner of education to grant a to waive the early literacy screening requirements if the school or program seeking the waiver operates under an instructional model that makes early literacy screening in kindergarten or first grade inappropriate and has a formal policy adopting this instructional model.

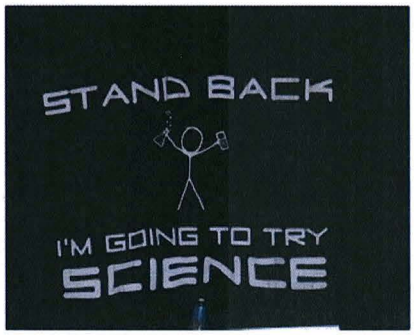
I strongly encourage the Alaska state school board to deny this change for the following reasons:

-
- first, without such early literacy screening schools, teachers, and parents do not have a complete basis to make relevant recommendations for an initial evaluation under The Individuals with Disabilities Education Act, specifically under their obligation to fulfill The Child Find requirement in Section1412(a)(3). "Child Find must include: Children who are suspected of being a child with a disability ONE CAN NOT Suspect without screening
- Second, as we all know early identification of children who struggle to learn to read for any reason is of the utmost importance and dare I say moral obligation that trumps any educational philosophy. One only has to search the US national Library of Medicine, National Institutes of Health with keywords reading and early identification to see the results of 104 scholarly articles demonstrating the importance of early identification. Similarly, a simple search in the ERIC database reveals over 400 articles about the importance of early identification of children who struggle to learn to read. At the Office of Special Education Programs website, it is explicitly clarified there are 153 results discussing Child Find and early identification.
- Third, the office of special education program website reveals a summary of "comprehensive child find system" that includes **pre-referral procedures literacy screening is imperative.**
- **I have great concerns about how this regulation change would intersect with the results of the Moore case and the Moore Settlement**
- **Finally, a more Genuine and honest regulation would be to provide parents the results of the screenings so that children can be identified as missing some basic foundational reading skills to obtain resources that they can use to intervene early for their child. I realize that this must be navigated under the IDEA law, however; now there are early intervention virtual reading coaches that a school can inexpensively provide that identified or at-risk child.**
- **The most severe cases of older children struggling in reading that I have recently had are from schools that do not teach reading until quite late and use methods that**

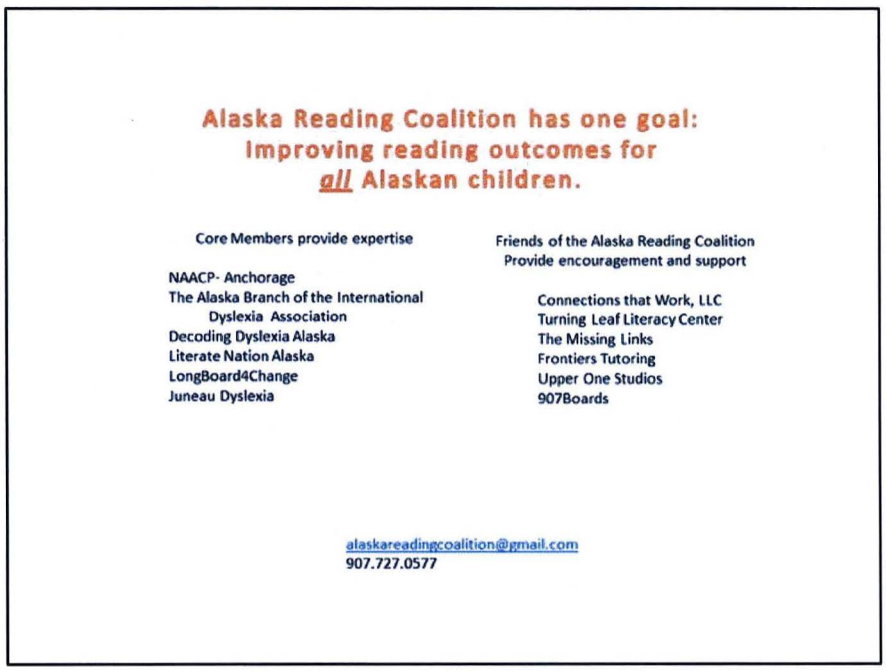
are based on philosophy and not the science. As I have said before in other testimony, I do not want to see another non-reading 14 year old in Alaska who if they had early intervention would never had to had 1:1 privately paid tutoring for over 120 hours at a minimum. This is unethical in my view to encourage any practice that refuses screening to identify these at-risk children.

- **Parents who choose to go to this type of school should not give up their right to early identification that their child has strong indicators of reading acquisition struggles.**

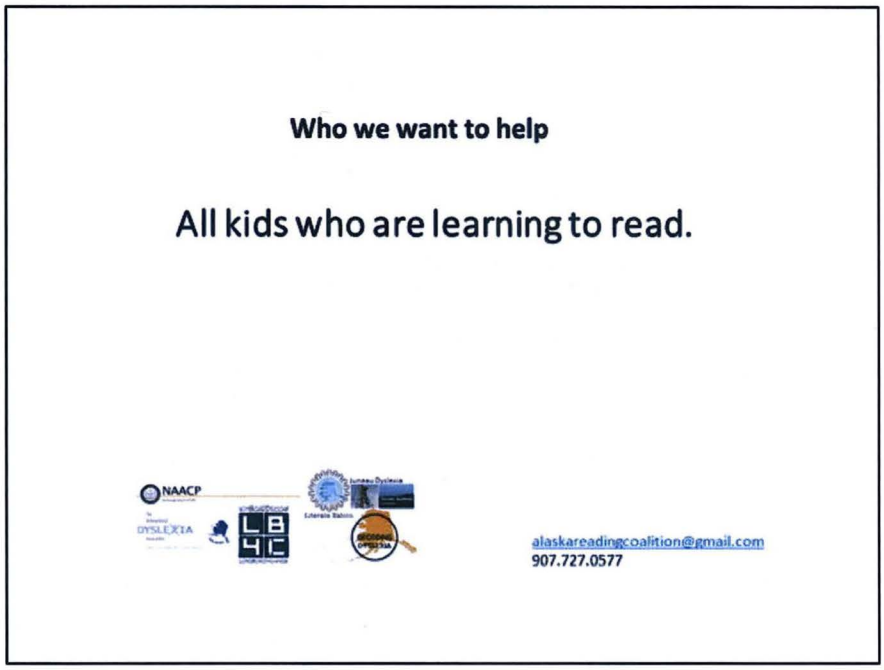
Welcome to:
Dyslexia Science is Reading Science for All



- Welcome to Dyslexia Science is Reading Science for All
  - Welcome Dyslexia Science is Reading Science for All. Stand back! I'm going to try science!

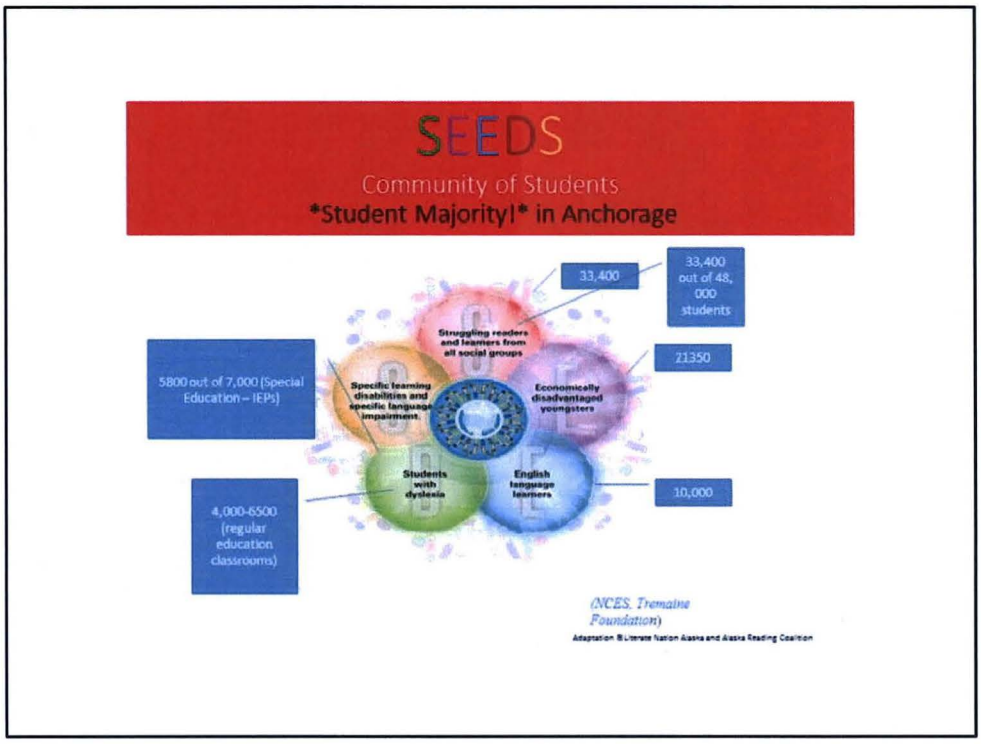


- Alaska Reading Coalition has one goal: Improving reading outcomes for *all* Alaskan children.
    - The Alaska reading coalition has one goal: improving reading outcomes for all Alaskan children. We have core members who provide expertise and voice. The NAACP-Anchorage, the Alaska Branch of the International Dyslexia Association, Decoding Dyslexia Alaska, Literate Nation Alaska, LongBoard4Change, and Juneau Dyslexia.
    - We also have a lot of friends who provide encouragement and support. They include Connections that Work, Turning Leaf Literacy Center, The Missing Links, Frontiers Tutoring, Upper One Studios with Rick Mallars, and your school to business partnership, 907Boards.
    - Feel free to contact us at alaskareadingcoalition@gmail.com or you can text me at 907-727-5077. Thank you.



Who we want to help:

We want to help all kids who are learning to read.



Let's take a look at our kids in the SEEDS Community of Students. *The Student Majority in Anchorage, Alaska, and the Nation.* Picture who these SEEDS students are in Anchorage. They are the 70% of all students in Anchorage reading at basic or below basic.

SEEDS is an acronym that describes:

Struggling readers from all socio-economic groups. About 33,400 out of 48,000 students in the Anchorage School District struggle to learn to read.
Economically disadvantaged youngsters. In Anchorage about 21,000 of them live in economic poverty and thus they are at risk for learning to read.
English-language learners in Anchorage. We have about 10,000 in Anchorage which puts them at risk in reading.
Students with **Dyslexia** in the regular classroom, about one in five students. That is about 4000 to 6000 in the regular classroom. The rate is about 15 to 20%.
In **Special Education,** about 5800 out of 7000 students are dyslexic.
That is a total of about 10,000 students with dyslexia in the Anchorage School District.
This SEEDS mandala shows us that struggling readers are found across all populations from the wealthy to the disadvantaged, English language learners and the students with dyslexia and those students with dyslexia served under special education. The good news is that science tells us that 33,400 students out of 48,000 students who struggle to learn to read all have the ability to become fully literate citizens of Anchorage.

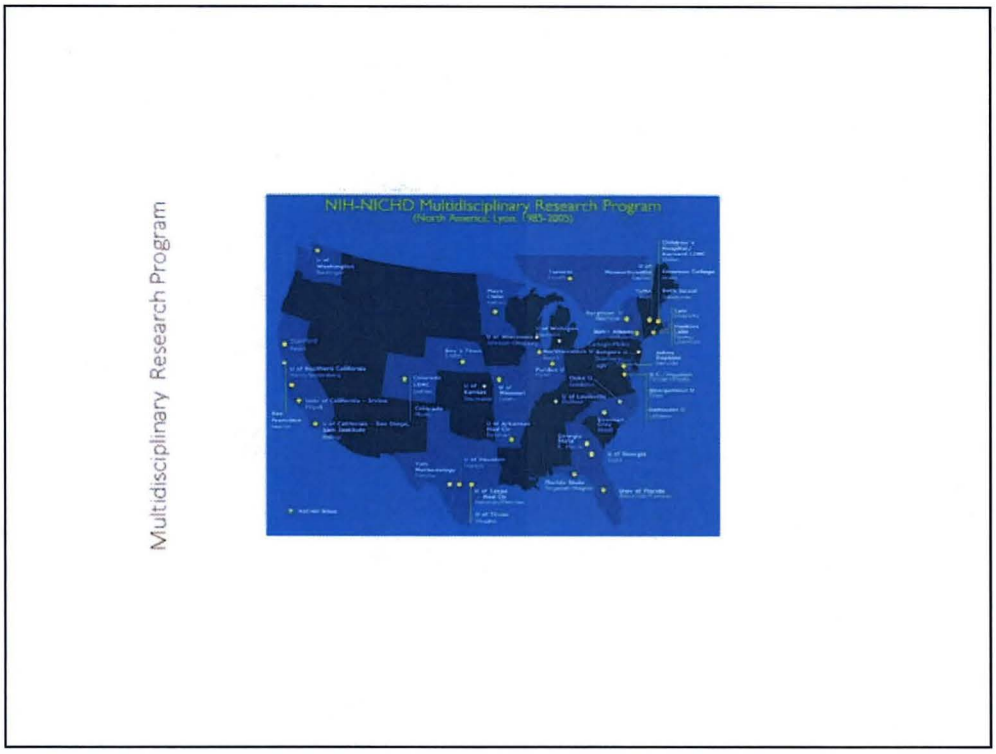
Sources of data
http://www.ies.ed.gov/ncser/pubs/20123000/pdf/20123000.pdf
http://www.asdk12.org/aboutasd/ accessed June 7, 2016
http://www2.ed.gov/programs/osepidea/618-data/static-tables/2014-2015/part-b/child-count-and-educational-environment/1415-bchildcountandedenvironment-3.xlsx
http://nces.ed.gov/nationsreportcard/states/Default.aspx?st=ak
http://www.asdk12.org/depts/assess_eval/report_cards/1415/DistrictReportCard.pdf

Goals of today's Joint Meeting

1. Explain why the science of dyslexia drives reading science for all beginning readers
2. Ideal scenario with a Highly Knowledgeable and Skilled Teacher of Reading: Presented by kids.
3. Overview of policy considerations
4. It will take at least **3-5 years** to achieve the teacher preparation and professional development needed to bring all Anchorage children up to reading proficiently. This would be equivalent to about 15 college credit course hours.

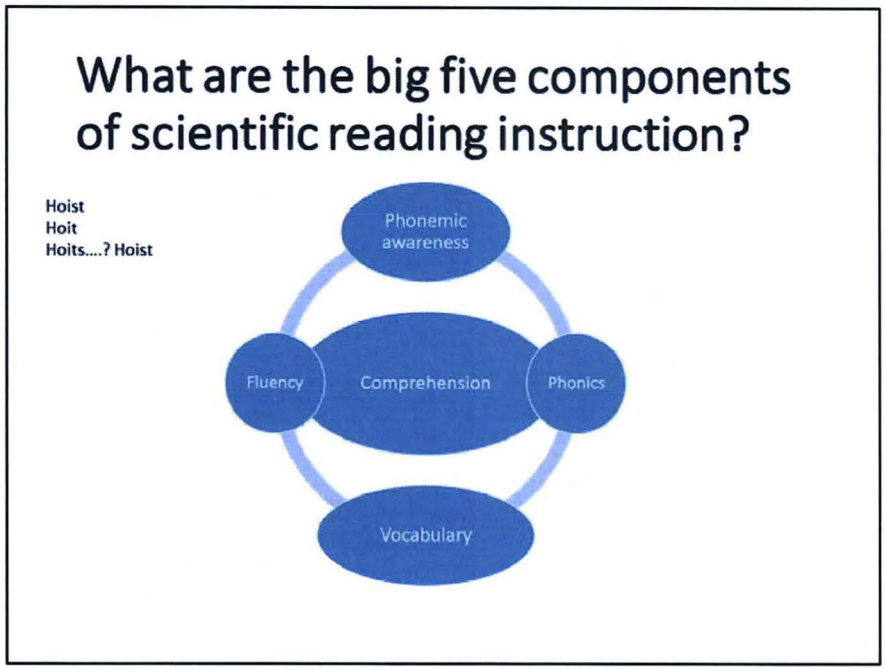
Anchorage in Crisis:
The Literacy Time Bomb-

- Anchorage in crisis: the literacy time bomb
  - 33,000 out of 48,000 Anchorage kids are not reading proficient. Anchorage's reading scores have demonstrated this on the Alaska Measurements of Progress. This is a crisis.
  - Our Alaska Measures of Progress scores in Anchorage are very close to the Alaska's National Assessment Of Educational Progress reading scores and show evidence that the Anchorage reading time bomb has exploded.
  - According to 40 years of National Institute of Health Center's research, scientific consensus makes it clear that it is absolutely possible to reverse the decades of reading failure in Anchorage, Alaska, and across the nation.
  - There is an entrenched deficit in teacher preparation programs along with teacher professional development offerings that creates a huge problem in reaching our reading goals. We want those 33,000 students to be proficient readers.
  - There are complex reasons why our children are not reading proficiently. In this presentation were going to highlight some of them. We believe the most important one is...



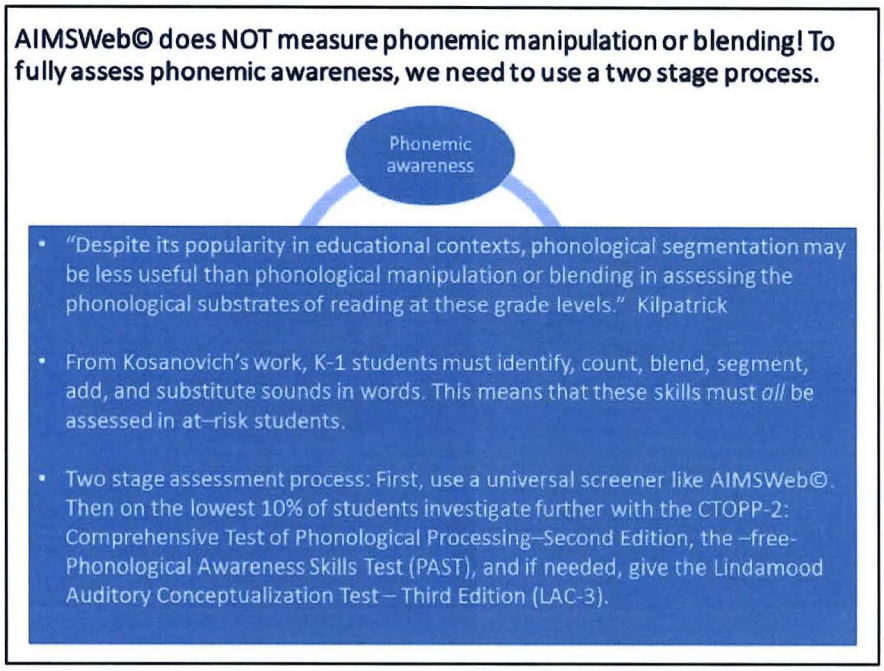
Multidisciplinary Research Program

- Many colleges of education programs do not ensure that teacher candidates graduate with the scientific and evidence-based knowledge needed to teach reading.
- Teacher educators and professional development departments throughout the country lack an in-depth understanding of the essential components of early reading instruction. This means that they are unable to give this knowledge to their teacher candidates. They cannot pass on what they themselves do not know.
- We believe we are going into our **third** generation of college professors who do not have this knowledge base. Hence, a huge gap exists between the advanced knowledge of reading science known to preeminent scientists and researchers in reading and the practical knowledge of practitioners, our teachers in local schools.
- This is one of many reasons that our children's reading scores in Alaska and Anchorage will remain critically low unless something changes. What do these scientists know that we don't know?



- **What are the big five components of scientific reading instruction?**
  - **Phonemic awareness.** The ability to easily understand and **manipulate** sounds in words and how they change from word to word. Hoist has four sounds. If I tell a student with good phonemic awareness to take out the /s/ sound they will do so and know that now there are only three sounds. If you don't have the skill you might ask, What /s/ sound are you talking about? Hoit. If I ask you to add back the /s/ at the end, and you don't have good phonemic awareness skills you might end up with Hoits or you might end up back at hoist. Phonemic awareness is critical in learning to read whether you are aware of it or not.
  - **Phonics:** phonics is simply knowing that the letter r is said /r/. The letter f is said /f/. The letters ee is said /e/. There are eight ways to spell the long /a/ sound in the English language. And phonics instructs us when to use which spelling. Italian, Finnish, Spanish have only one letter per sound so those language are easier to read and spell.
  - **Vocabulary** includes understanding Latin and Greek roots words, prefixes and suffixes
  - **Fluency** is reading in a manner that all letters, spellings, words, connected text, and vocabulary are processed automatically and efficiently so that your brain is free to comprehend the text and it think deeply about what you have read.
  - **And we must have comprehension because that is the goal of reading.**

❑ http://www.scsk12.org/scs/subject-areas/kweb/images/nationalreadingpanel_faq.pdf



Deeper dive on phonemic awareness.

AIMSWeb© does NOT measure phonological manipulation or blending!

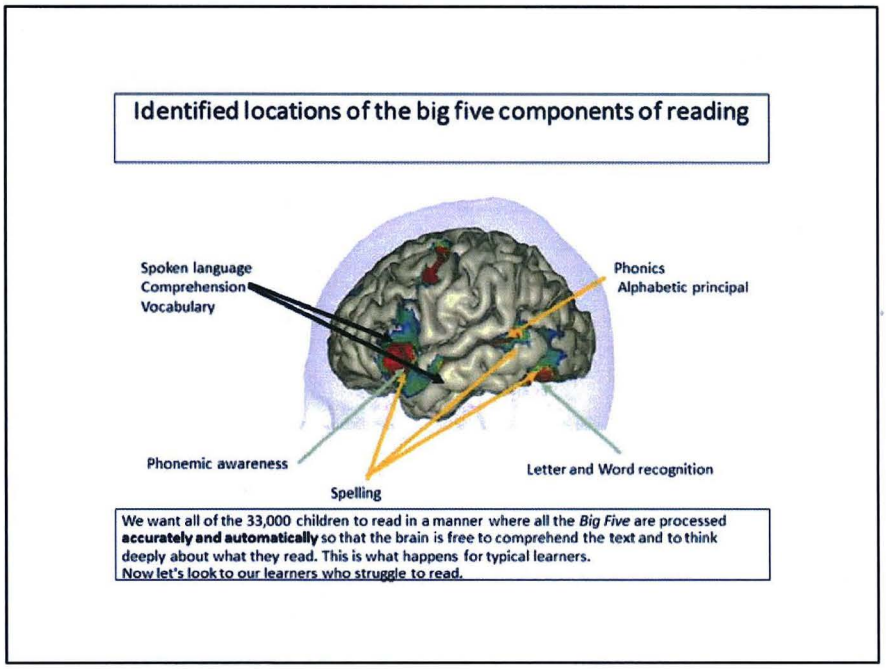
- "Despite its popularity in educational contexts, phonological segmentation may be less useful than phonological manipulation or blending in assessing the phonological substrates of reading at these grade levels." Kilpatrick

- From Kosanovich's work, K-1 students must identify, count, blend, segment, add, and substitute sounds in words. This means that these skills must *all* be assessed in at–risk students.

- Two stage assessment process: First, use a universal screener like AIMSWeb©. Then on the lowest 10% of students investigate further with the CTOPP-2: Comprehensive Test of Phonological Processing–Second Edition, the –free- Phonological Awareness Skills Test (PAST), and if needed, give the Lindamood Auditory Conceptualization Test – Third Edition (LAC-3).

- 40 years of National Institute of Health Science has shown us where these critical skills are located in the brain. They are in particular parts of the brain that we have identified on fMRIs. Now I want to show you where in the brain these components are processed. I'm taking a deep dive here but stay with me.

- ❑ http://www.scsk12.org/scs/subject-areas/kweb/images/nationalreadingpanel_faq.pdf
- ❑ Canadian Journal of School Psychology June 2012 vol. 27 no. 2 150-165 Phonological Segmentation Assessment Is Not Enough: A Comparison of Three Phonological Awareness Tests With First and Second Graders
- ❑ http://www.wrightslaw.com/bks/aat/ch6.reading.pdf
- ❑ P 13 BUILDING THE FOUNDATION: A Suggested Progression of Sub-skills to Achieve the Reading Standards: Foundational Skills in the Common Core State Standards



We have Identified the locations in the brain across all languages and all scripts where the big five components of reading are processed.

Phonics learning the alphabetic principle are processed in this area of the brain. We can actually see the areas of activity in the brain on functional MRIs when we learn to connect a letter to a sound.

The critical skill of phonemic awareness happens in this part of your brain towards the front a little.

The ability to automatically identify this letter or this word in less than 150 ms is processed in this area of the brain.

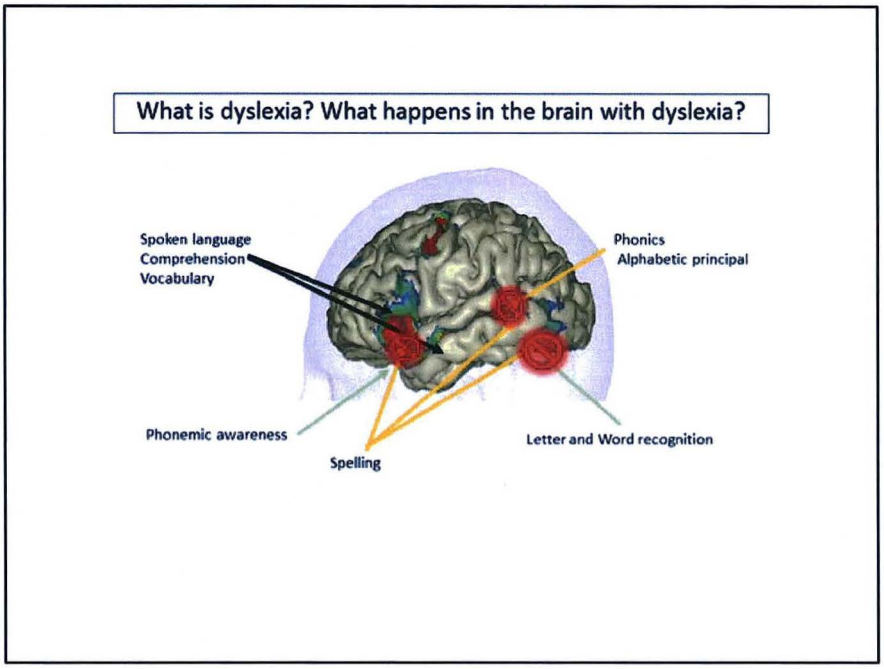
Spelling requires all of these areas of the brain.

Finally, comprehension and vocabulary happen in these two areas of the brain and are very well connected with spoken language.

We want all of the 33,000 children in Anchorage below proficient to read in a manner where all of the big five skills are processed in the brain accurately and automatically. This means that the brain is free to comprehend the text and to think deeply about what is read. For typical learners these areas of the brain are well connected and have strong fast neurons. Now let's look at our learners who struggle to read. We want to know what happens when reading is very difficult as in the condition of dyslexia.

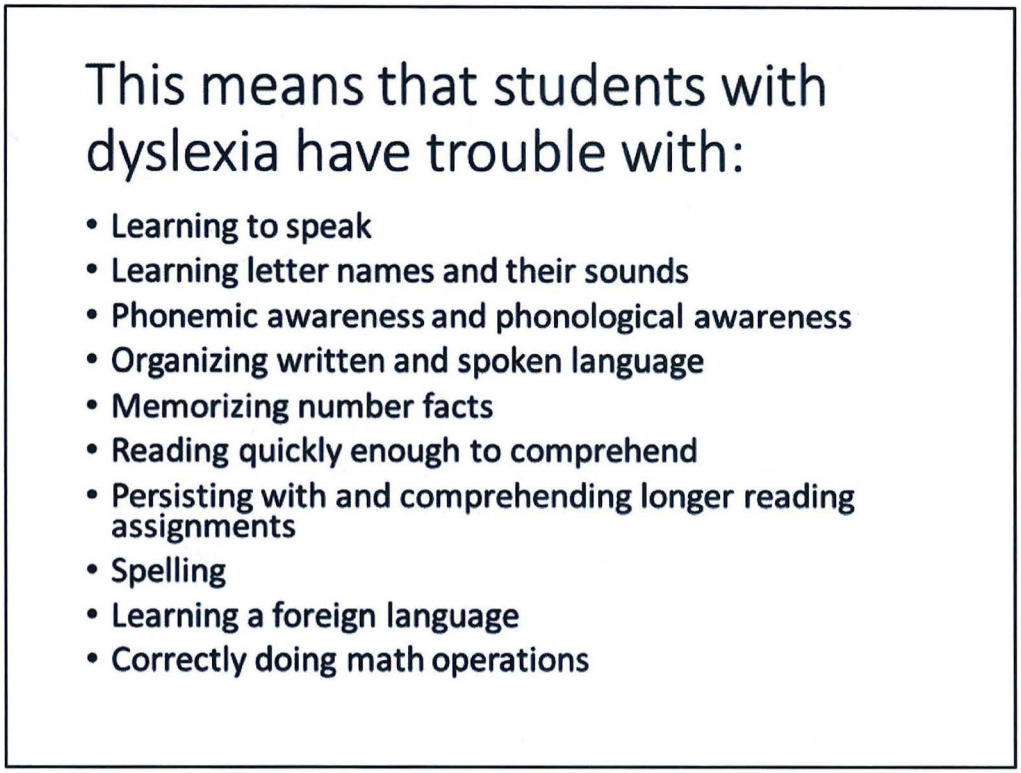
http://politicaspublicas.uc.cl/wp-content/uploads/2016/03/Stan.pdf (Wolf & Katzir-Cohen 2001)

K. Monzalvo et al. NeuroImage 61 (2012) 258-274



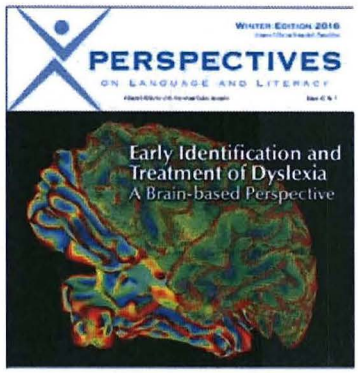
- What is dyslexia? What happens in the brain with dyslexia?
  - Simply put those critical areas of the brain in a student with dyslexia are not connected with the rich neural networking that makes it easy to learn to read and to spell. These areas are usually in the left hemisphere of your brain. In a person with dyslexia, the connections are weak.
  - Unless a student with dyslexia receives early identification and scientific brain changing instruction in the right dose, students with dyslexia will suffer and struggle needlessly, and this struggle can have lifelong consequences.
  - It is critical to understand that students with dyslexia will need accommodations, because it will continue to take more time to read the quantity of required work in school. We refer to dyslexia is a major time-robber in our lives. Even now as an adult with dyslexia, I assure you when I have to read or write something it will take three times longer than an adult without dyslexia will to achieve the same quality of work.

  - K. Monzalvo et al. NeuroImage 61 (2012) 258-274



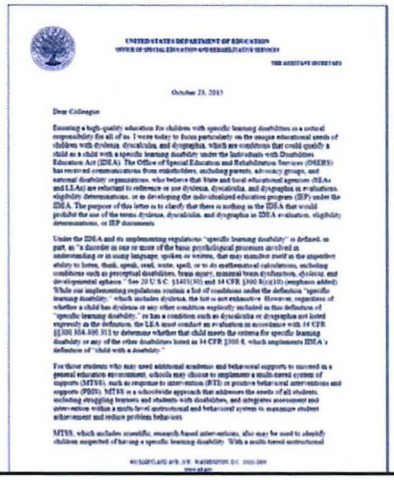
- This means that students with dyslexia have trouble with:
  - Learning to speak
  - Learning letter names and their sounds
  - Phonemic awareness and phonological awareness
  - Organizing written and spoken language
  - Memorizing number facts
  - Reading quickly enough to comprehend
  - Persisting with and comprehending longer reading assignments
  - Spelling
  - Learning a foreign language
  - Correctly doing math operations
  - Are there policy choices that a city or district could choose that would support students with dyslexia? There are. And what we have shown is that when you support students with dyslexia, the number of students in the advanced reading levels doubles. That's because techniques to teach students with dyslexia help all readers. Let's talk about one policy, early identification and intervention for students with dyslexia.
  - https://dyslexiaida.org/dyslexia-basics/

Policy Considerations

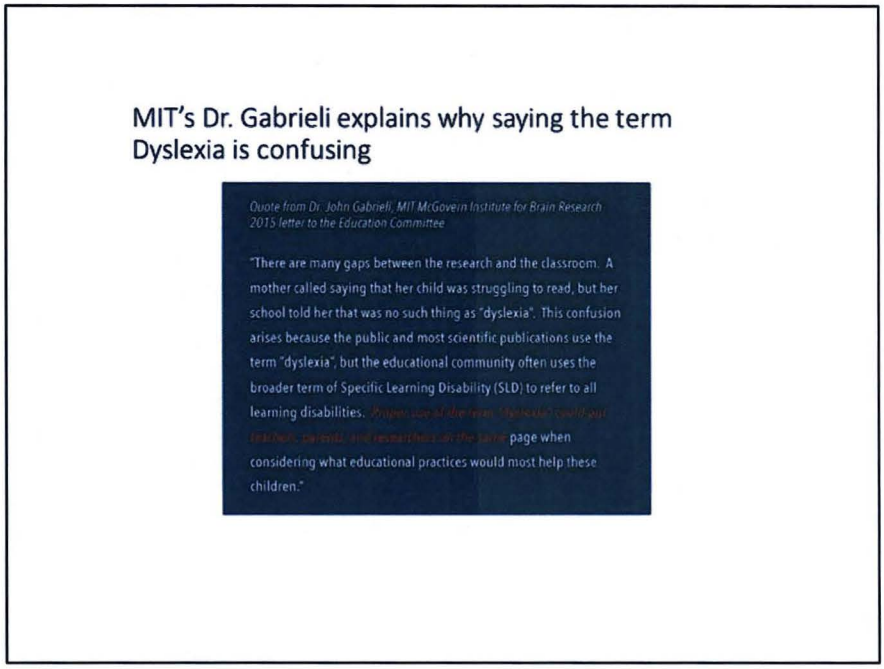


- Policy considerations
  - Early identification and treatment of dyslexia: a brain-based perspective
  - The science of dyslexia is enabling the identification and prevention of reading failure for our kids earlier into childhood. I can give a four-year-old child the Comprehensive Test of Phonological Processing-second edition in 30 minutes and along with taking a genetic history of that child, I will have approximately an 86% chance of predicting if that child will struggle with the big five components of reading. This may be shocking news to you.
  - Anchorage could choose to be on the cutting edge of early identification and prevention by seeking to participate in dyslexia and reading research projects at the National Institute of Health. Brett Miller is your contact and I would be glad to get you in touch.
  - This is only one of the policies that cities like Anchorage could find powerful in helping to improve reading outcomes.
  - Mayors and city assemblies are increasingly using their leadership capacity and access to city resources to strengthen and support public schools - even when they have no formal authority over school districts.
  - I want to show you another policy consideration. It is a letter from last fall from the United States Department of Education, the Office of Special Education and Rehabilitation Services authored by the Assistant Secretary of Education.

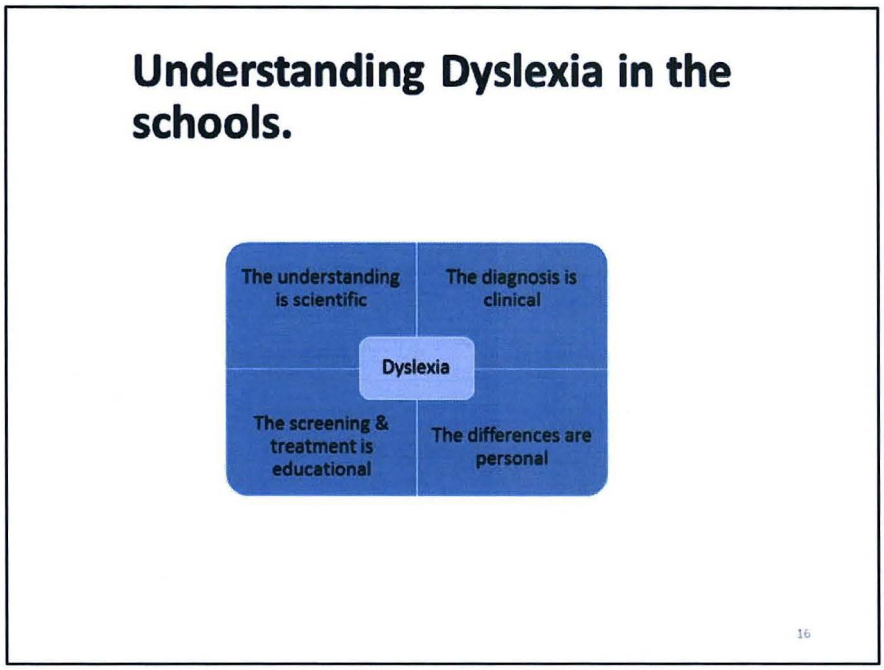
Dear Colleague: Dyslexia Guidance



- This is a letter on dyslexia guidance. A copy of this letter is in your packet and if you search YouTube, you will find an interview by Assistant Secretary of Education Michael Yudin.
- This letter is a roadmap for policies that cities, states or school districts could use to guide and implement the identification and interventions necessary for the success of students with dyslexia. Briefly I'm going to point out three important benefits for our children in this letter.
    - First, this letter explains why the term dyslexia should be allowed to be used in schools. Simply there is nothing in The Individuals with Disabilities Education Act that prohibits the use of the terms dyslexia, dyscalculia, and dysgraphia in an evaluation, eligibility determination, or IEP documents.
    - This letter states that state educational agencies and local educational agencies should have policies in place that allow for the use of these terms.
    - The letter states that personnel responsible for IEP implementation need to know about this condition, for example, that a child has a weakness and decoding skills as a result of that child's dyslexia.
    - This letter should clear up the confusion about the use of the term dyslexia throughout the educational system.

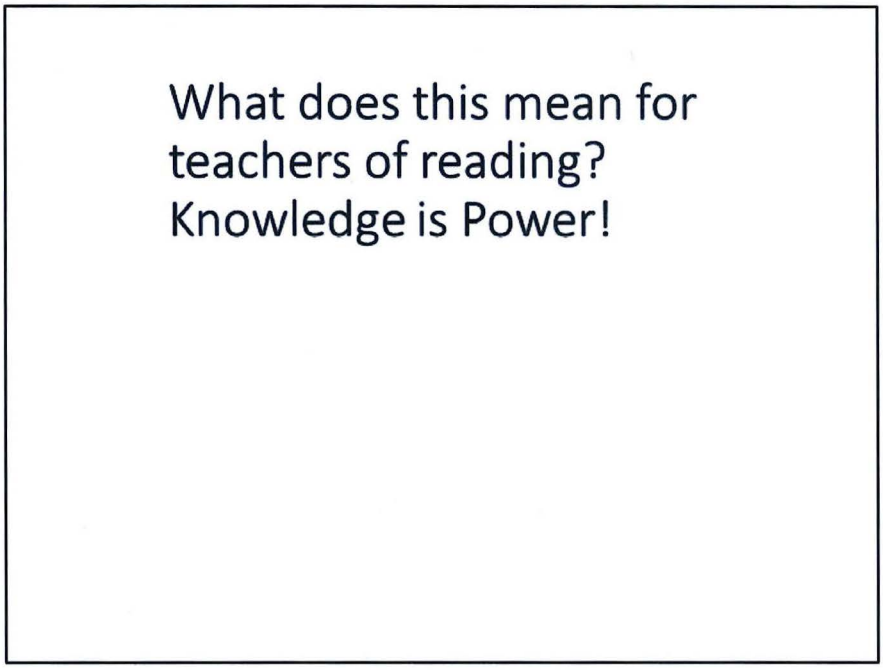


- At MIT Doctor Gabrieli explains why saying the term dyslexia is confusing.
  - "There are many gaps between the research and the classroom. A mother called saying that her child was struggling to read, but her school told her that there was no such thing as "dyslexia". This confusion arises because the public and most scientific publications use the term "dyslexia", but the educational community often uses the broader term of Specific Learning Disability (SLD) to refer to all learning disabilities. Proper use of the term "dyslexia" could put teachers, parents, and researchers on the same page when considering what educational practices would most help these children."



- We must understand dyslexia in the schools.
  - The understanding of dyslexia is scientific.
  - The diagnosis is clinical. School psychologists and speech pathologists in their scope of practice can diagnose dyslexia along with medical doctors neuropsychologists speech pathologists outside of the educational system.
  - Importantly for teachers, the screening and treatment for dyslexia is educational, but the problem is that the universities have not taught them how to do this.
  - The differences in dyslexia are personal, i.e., unique to each individual person. This is because each child will have unique strengths and weaknesses in each of the five components of reading.

DYSLEXIA from M. B. Rawson: Understanding Dyslexia in the schools.
http://www.memphisdyslexia.org/articles/margaret_rawson.pdf



- **What does this mean for teachers of reading? Knowledge is power! And here the kids to demonstrate this.**
  - Kids thank you so much for helping us demonstrate what a night deal situation could look like in an Anchorage classroom. Let's give them a chance to settle back in their chairs or go on about their day. And kids remember, Longboards for Change is starting their art contest linking long boards to literacy and reading, make sure you go sign up. Bye.
  - There are many myths about learning to read and dyslexia that get in the way of having an ideal teacher preparation and professional development program. One of the biggest myths is that dyslexia is a visual problem.

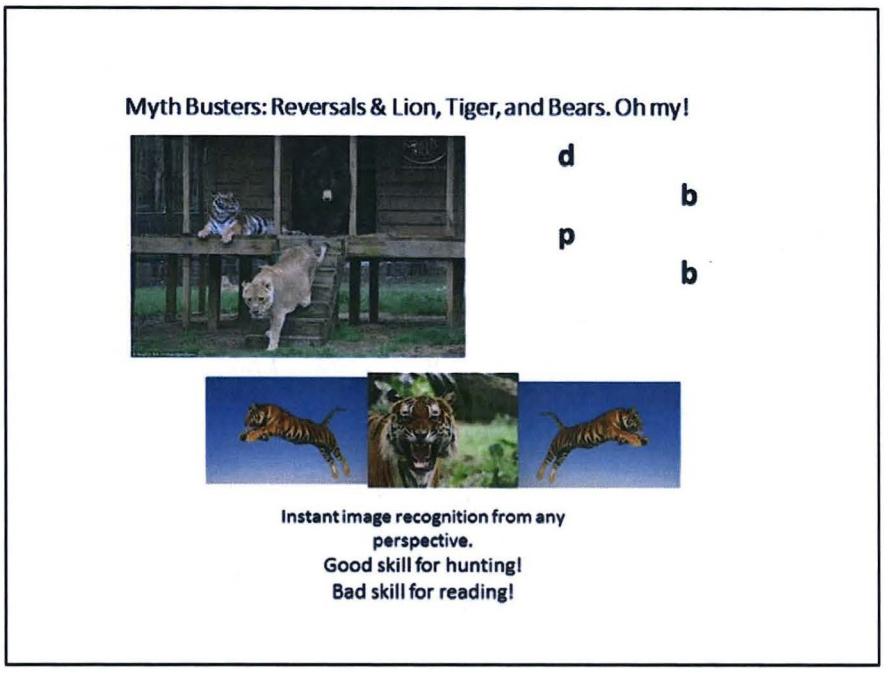
http://ec.ncpublicschools.gov/conferences-profdev/annual-conference/2015/conference-materials/session-25.pdf

Nancy Hennessy Nov 18-20 2015 at Public Schools of NC 65th conference on Exceptional Students

Myth Busters: Seeing is Not Reading
therefore reading problems are not "seeing" problems unless your eyes and optic nerve are damaged.

- **Myth Busters: Seeing is Not Reading**
  - Seeing is not reading, therefore, reading problems are not "seeing" problems unless your eyeballs and optic nerve are damaged. Reading happens in your brain and it starts at the back of your brain. People with dyslexia seeing things just fine. Their muscles work just fine. They do not see things backwards.
  - Letter reversals are another myth. Everyone has a critical survival skill that works well when we are hunting but not so well when we are reading.

  - Photo credit: Photo credit: CLIPAREA.com/Folotia



- **Myth Busters: Reversals & Lion, Tiger, and Bears. Oh my!**
  - We all have the capability to recognize an image is the identical object from any perspective.
  - Just ask an artist how useful this capability is in sculpture.
  - In the natural world, this reversal capability usually does not affect the identity of natural objects: CLICK "a tiger is equally threatening to us when seen in the right or left profile."
  - We have to unlearn this critical human survival skill to consistently recognize these letter and words. It is very difficult for us to un-learn anything.
  - So we want you to bust the myth of making reversals so important. Lions and tigers and bears oh my.
  - This is a natural skill of instant image recognition from any perspective that is a good skill for hunting! But a bad skill for learning to read.
  - We really should be worrying about the implementation of response to intervention the response to instruction.

http://www.dailymail.co.uk/news/article-3472062/Lion-tiger-bear-brothers-living-Georgia-animal-shelter-haven-t-left-s-15-years.html

Noah's Ark Animal Sanctuary for picture

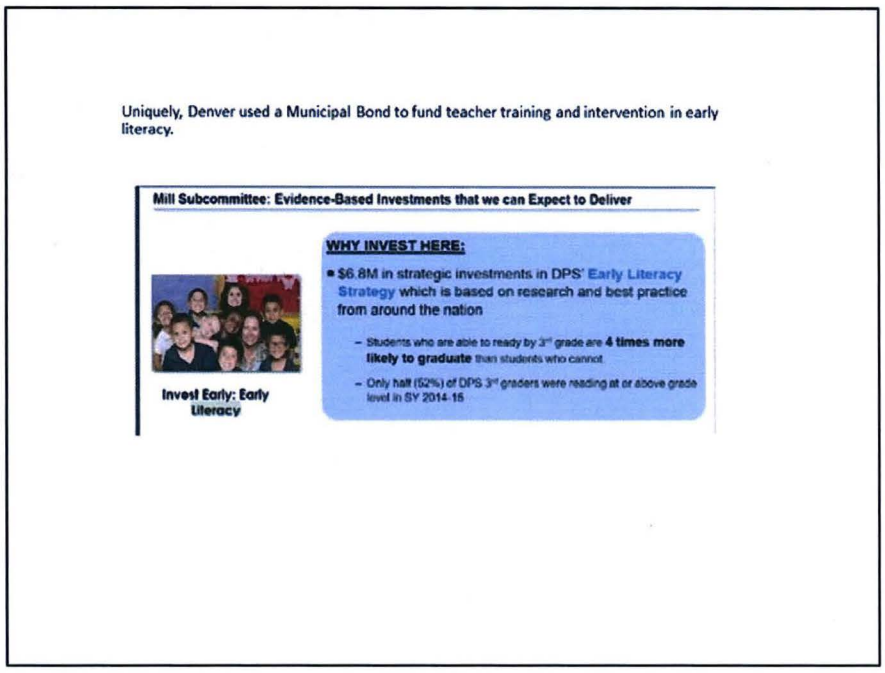
- **RTI**
  - Response to intervention was the result of some really exquisite research that led to a national initiative to address our reading failure. It used data to show progress in reading but a critical element was left out. Our teachers were not prepared in the fluent knowledge and use of evidence-based intervention and instruction. We just jumped into collecting data. Ms. Allison from our skit graduated from Dyslexiacon University. On the day she graduated, she was fluent in the use of evidence-based intervention and instruction. She could teach any kid to read because she could teach a student with dyslexia to read proficiently.
  - This is our dream. If we achieve our dreams in Anchorage and Alaska, we would experience a seismic improvement in its economy. Let me show you some numbers. I want to show you a table from Eric Hanushek of the Hoover Institution in their April 2016 study titled, Economic Gains for US States from Educational Reform in which each states gain in gross domestic product can result from education reform.

Kilpatrick, D. A. (2015). *Essentials of Assessing, Preventing, and Overcoming Reading Difficulties*. Hoboken: John Wiley & Sons. http://doi.org/9781118845400

Hoover Institute 2016 Nationwide study

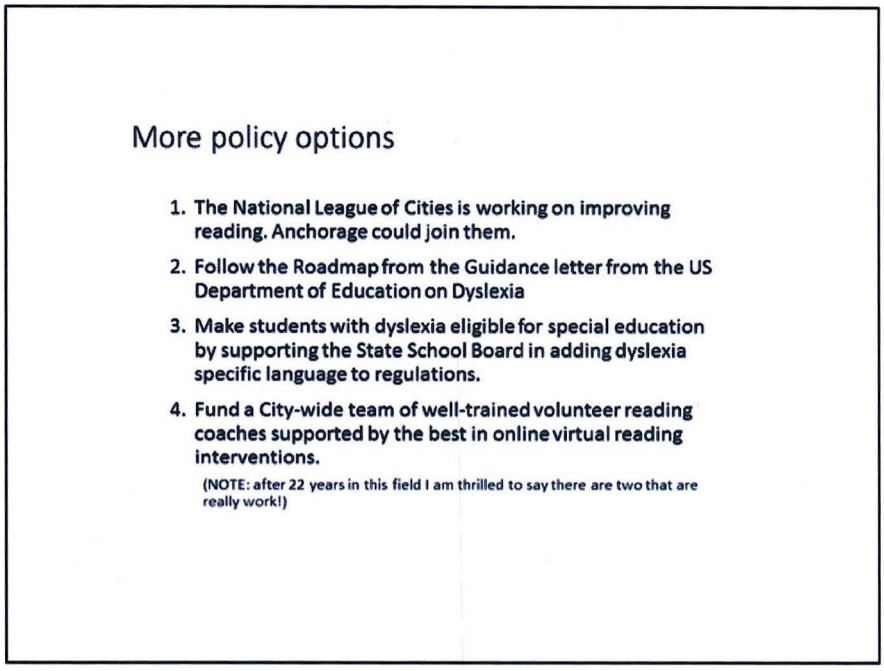
Improvement	Discounted reform billion $'s	% current GDP	% future GDP without reform
1. ¼ stnd deviation	157	262	5.6
2. Equal Minnesota	191	318	6.8
3. Equal division best (WA)	54	91	1.9
4. All at least basic	**101**	**168**	**3.6**
5. Single state to best (MN)	54	90	1.9
6. Equal Canada	195	325	7.0
7. Equal Finland	232	386	8.3

- This table illustrates how education reform in reading can create an economic boon from addressing the reading problems in Anchorage and Alaska.
  - Let's focus only on line number four. This line demonstrates an Alaska specific increase in the gross domestic product that would occur if we brought all Alaskan children performing below basic simply up to basic in reading achievement alone. While Eric's study focused on math he assured me by phone that the results would see the same increase if he had focused on reading. This represents an increase of $101 billion, in today's terms to Alaska's GDP.
  - Even if the study had a margin of error of plus or minus 25%, that's still a tremendous economic benefit. Since Anchorage is the largest population center, it would see the most economic benefit. We would have approximately a $50 billion increase in Anchorage's gross domestic product.
  - It Pays to Improve School Quality. Eric A. Hanushek, Jens Ruhose, Ludger Woessmann. *Education Next,* 16(3), Summer, Summer 2016, pp. 16-24.
  - http://educationnext.org/files/ednext_XVI_3_hanushek_alaska_projections.pdf
  - EricA.Hanushek,JensRuhose,andLudgerWoessmann,"Itpaystoimproveschoolquality:Statesthatbooststudentachievementcouldreaplargeeconomicgains,"EducationNext,Summer2016



- In your packet you will find a few pages from Denver's municipal bond that funds teacher training and intervention in early literacy.
    - There are many options, choices and tools to get to our goal. It would probably take a combination of public and private enterprises. Other states like Connecticut, Florida, and the Carolinas have been successful. Denver has started an investment process using bonds to fund teacher training in early intervention as part of their plan to achieve this return on their investment.

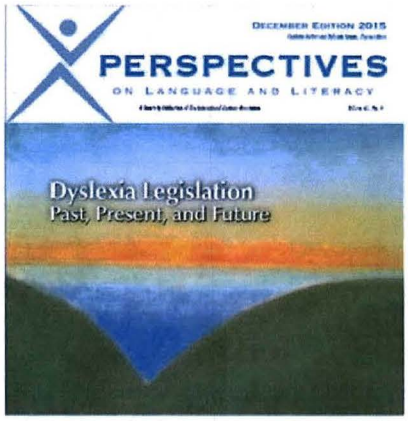
    - http://bond.dpsk12.org/wp-content/uploads/2016/04/2016-Mill-Subcommittee-Meeting-5_Draft-update.pdf



- We have some ideas about more policy options:
  - The National League of Cities is working on improving reading. Anchorage could join them.
  - Anchorage, the district, and the state could follow the roadmap from the guidance letter from the US Department of Education on dyslexia and implement related policy.
  - We could make students with dyslexia eligible for special education by supporting the State School Board in adding dyslexia specific language into our regulations.
  - The municipality could fund a citywide team of well-trained volunteer reading coaches supported by the best in online virtual reading interventions.
    - After 22 years in this field, I am thrilled to say that now there are two online virtual reading interventions that really work!

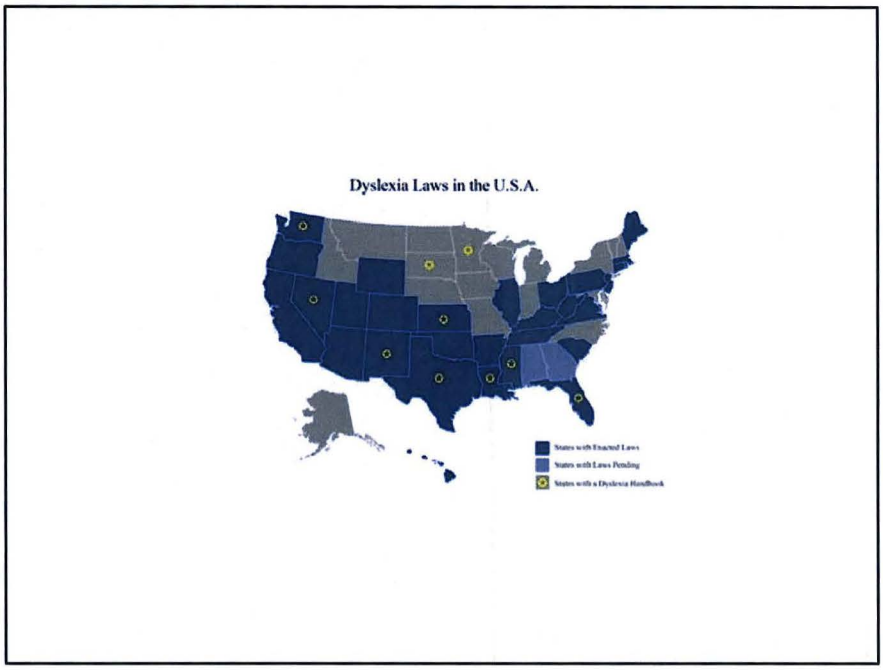
http://www.nlc.org/find-city-solutions/institute-for-youth-education-and-families/early-childhood with http://gradelevelreading.net/

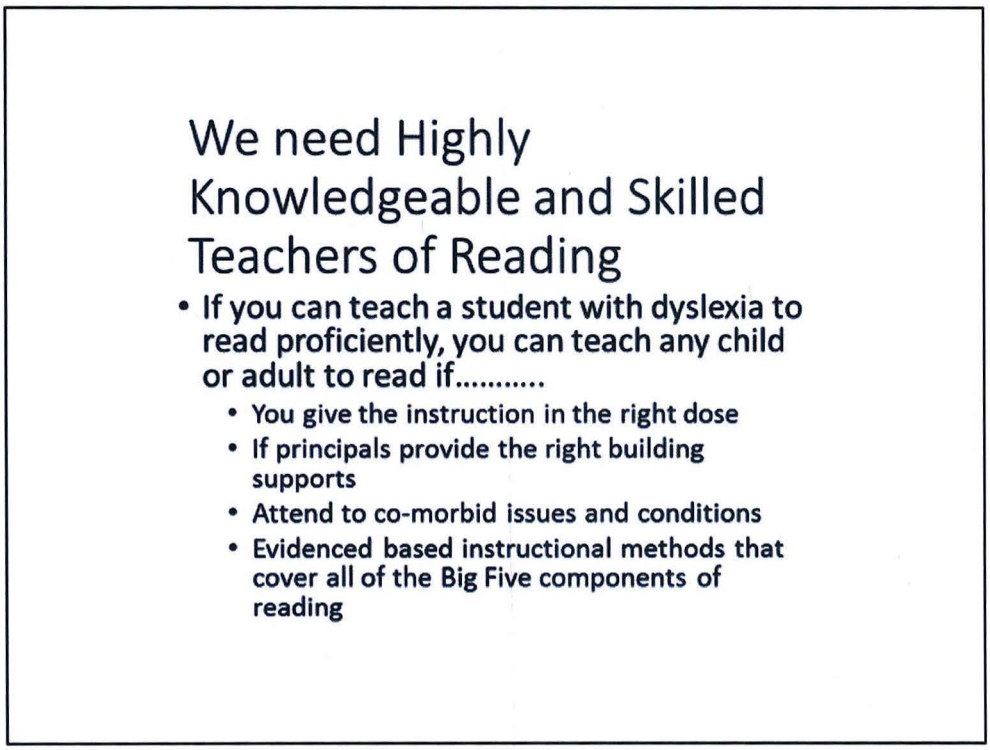
https://www2.ed.gov/policy/speced/guid/idea/memosdcltrs/guidance-on-dyslexia-10-2015.pdf



- Further, many states have new dyslexia laws. In your handouts there is an article that summarizes the laws and provides a model for what should be in a state dyslexia law.
    - You can see that Alaska is one of the 13 states without a dyslexia law, nor does Alaska have statutes, regulations, or even a handbook on dyslexia. In fact, teachers are rarely encouraged to use the word. If they were allowed to freely use the word dyslexia you might find that you have the least expensive source of teacher training about dyslexia. Many of our teachers do know about dyslexia but they have been stifled. These are your future leaders and peer-to-peer trainers who could become dyslexia specialists and certified dyslexia specialists that could be deployed throughout Anchorage.

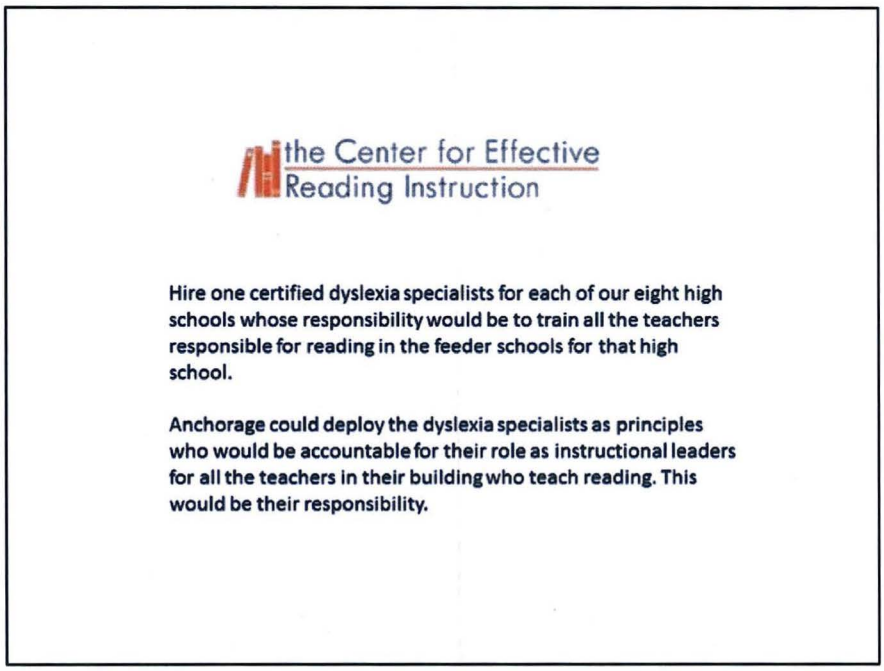
    - Courtesy of Nancy Mather and Martha Youman *(Courtesy of Nancy Mather and Martha Youman*


Dyslexia Laws in the U.S.A.
States with Enacted Laws
States with Laws Pending
States with a Dyslexia Handbook



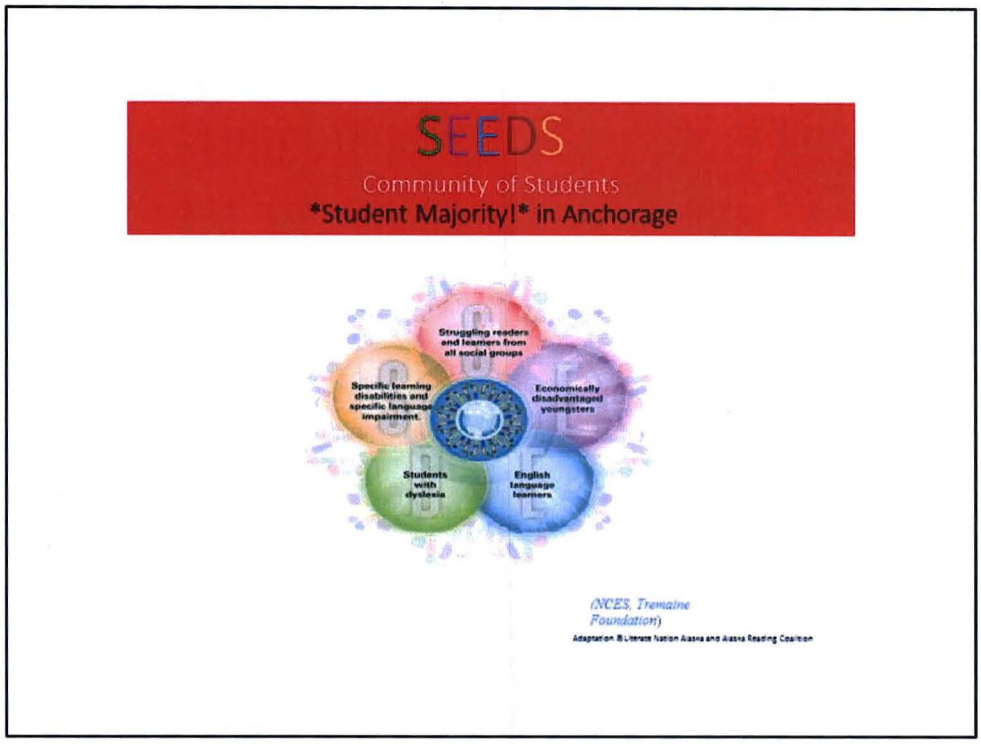
- We need Highly Knowledgeable and Skilled Teachers of Reading.
  - If you can teach a student with dyslexia to read proficiently, you can teach any child or adult to read if
    - you give the instruction in the right dose and as early as possible.
    - If principals provide the right building supports
    - If you attend to co-morbid issues and conditions like ADHD and anxiety
    - You use evidenced-based instructional methods that cover all of the big five components of reading
    - How can you get certified dyslexia specialists who are highly knowledgeable and skilled teachers of reading and what you do with them?

Blueprint for a Literate Nation, Paperback: 668 pages **Publisher:** XLIBRIS (October 11, 2013) **Language:** English **ISBN-10:** 1493104691 **ISBN-13:** 978-1493104697 Cinthia Coletti

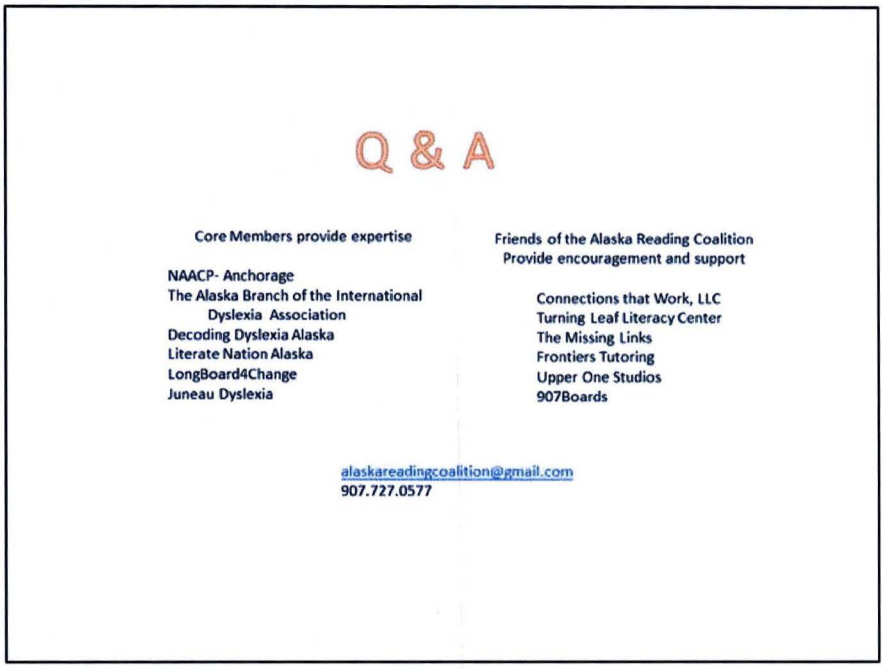


- The International Dyslexia Association has started The Center for Effective Reading Instruction to certify dyslexia specialists. This means that Anchorage could
    - Hire one certified dyslexia specialist for each of our eight high schools whose responsibility would be to train all the teachers responsible for reading in the feeder schools and that high school.
    - Anchorage could deploy the dyslexia specialists as principals who would be accountable for their role as instructional leaders for all the teachers in their building who teach reading. This would be their responsibility.

https://effectivereading.org/



- SEEDS
  - Let's remember the SEEDS students that we are trying to help. The 70% of students reading at basic or below basic. Remember that the mandala shows us that struggling readers are found across all populations from the wealthy to the disadvantaged, the English language learners and the students with dyslexia, and the students with dyslexia served under special education. Science tells us that they all have the ability to become literate and productive citizens.
  - We are finally beginning to translate research about reading instruction into practice, and it is a complex translation. It will take time, exquisite planning, strong leadership, political will, and smart policies in place that are sustained beyond one administration.
  - While dyslexia research is driving the reforms in reading instruction, all children will benefit. We have found that when we address the needs of students with dyslexia, the number of students in the advanced reading levels doubles and many in the basic reading level move into proficiency.
  - Why does this happen? Because we have found that good reading instruction is good reading instruction.
  - We've given you a number of routes, pathways, methods, and reasons that Anchorage as a city and the Anchorage school district could use to create a sustained improvement in reading performance for all struggling readers.
  - Our coalition is actively trying to make changes and we seek ways to collaborate and partner to increase our capacity to reach our goals. We will continue to talk to legislators, the governor, teachers, administrators, and families and our faithful students with dyslexia to make it happen. We know that it will take time to solve a problem that the best in our nation haven't solved. But we are Alaskans. And we have faith in Alaskan's ability to solve problems and to think completely out of the box. Now if Ms. Henke and Carlson would assist on ASD policy we'll try to answer your questions.



Alaska Reading Coalition has one goal: Improving reading outcomes for all Alaskan children.

Presentation is based on these references

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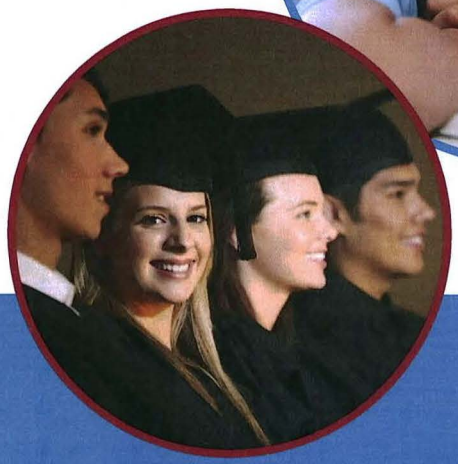
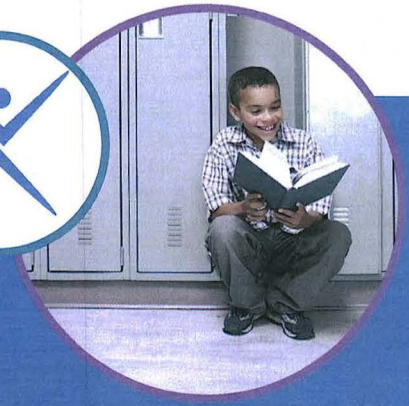




IDA Dyslexia Handbook

What Every Family Should Know

International DYSLEXIA Association®

IDA Dyslexia Handbook: What Every Family Should Know

40 York Road, 4th Floor • Baltimore, MD 21204
Info@interdys.org
www.interdys.org

Introduction

Welcome to the International Dyslexia Association (IDA). IDA was founded in 1949 in memory of Dr. Samuel Orton, a pioneer in the field of dyslexia. IDA's mission is to actively promote effective teaching approaches and intervention strategies for persons with dyslexia and related disorders. IDA encourages and supports interdisciplinary reading research and disseminates this information to professionals and the general public.

IDA has 42 state branches and 22 global partners to carry out its mission. These states and countries provide information regarding the best methods for helping individuals who need to learn how to read.

Structured Literacy describes the scientifically based approach for learning how to read. Chapter 4 addresses *Structured Literacy* and evidence-based approaches for learning to read.

The IDA Handbook provides necessary information regarding:

- definition of dyslexia
- characteristics of dyslexia
- appropriate assessment tools
- evidence-based interventions,
- suggestions for managing a dyslexic's educational process

In addition, helpful resources and a glossary of terms are provided to better understand dyslexia and its related disorders.

1

IDA Definition of Dyslexia

In this chapter you will learn about IDA's definition of dyslexia. This definition was developed with input from scientists and clinicians from universities in the United States and Canada. It is the definition of dyslexia that is also accepted and used by the National Institute of Child Health and Human Development (NICHD).

Definition:

Dyslexia is a specific learning disability that is neurological in origin. It is characterized by difficulties with accurate and/or fluent word recognition and by poor spelling and decoding abilities. These difficulties typically result from a deficit in the phonological component of language that is often unexpected in relation to other cognitive abilities and the provision of effective classroom instruction. Secondary consequences may include problems in reading comprehension and reduced reading experience that can impede the growth of vocabulary and background knowledge.

Adopted by the Board of Directors: November 12, 2002

Therefore, dyslexia is a specific learning disability that appears to be based upon the brain and its functioning. It appears that dyslexia runs in families.

Individuals with dyslexia have difficulty with processing and manipulating the sounds in a spoken language. This is related to the ability to read words accurately and fluently. Individuals with dyslexia will also have difficulty with spelling. Some of the consequences of not reading accurately or fluently and thus having fewer reading experiences may include problems with reading comprehension and vocabulary.

2

Characteristics of Dyslexia

There are many misconceptions regarding dyslexia. Families need to know the facts about dyslexia. This chapter helps you to understand the common characteristics of dyslexia. It also includes common questions and answers regarding dyslexia that can be helpful to you.

Introduction

Individuals with dyslexia have trouble with reading, writing, spelling and/or math even though they have the ability and have had opportunities to learn. Individuals with dyslexia can learn, but they often need specialized instruction to overcome the problem. Often these individuals, who have talented and productive minds, are said to have a language-based learning difference.

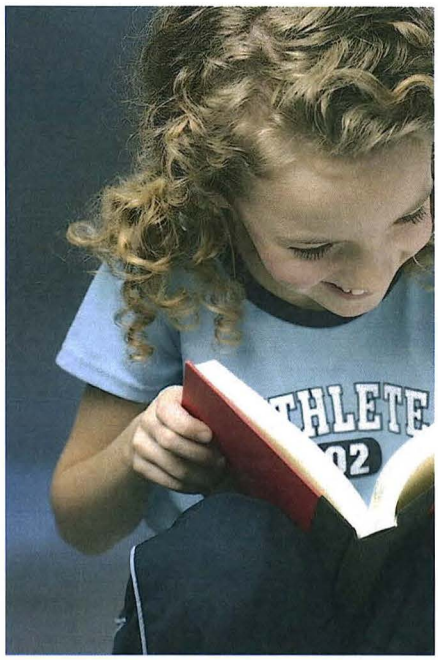
Common characteristics of dyslexia

Most people have one or two of these characteristics. That does not mean that everyone has dyslexia. *A person with dyslexia usually has **several** of these characteristics that persist over time and interfere with his or her learning.*

Oral language

- Late learning to talk
- Difficulty pronouncing words
- Difficulty acquiring vocabulary or using age appropriate grammar
- Difficulty following directions
- Confusion with *before/after, right/left,* and so on
- Difficulty learning the alphabet, nursery rhymes, or songs
- Difficulty understanding concepts and relationships
- Difficulty with word retrieval or naming problems

Reading



- Difficulty learning to read
- Difficulty identifying or generating rhyming words, or counting syllables in words (*phonological awareness)*
- Difficulty with hearing and manipulating sounds in words (*phonemic awareness*)
- Difficulty distinguishing different sounds in words (*phonological processing*)
- Difficulty in learning the sounds of letters (*phonics*)
- Difficulty remembering names and shapes of letters, or naming letters rapidly
- Transposing the order of letters when reading or spelling
- Misreading or omitting common short words
- "Stumbles" through longer words
- Poor reading comprehension during oral or silent reading, often because words are not accurately read
- Slow, laborious oral reading

Written Language

- Difficulty putting ideas on paper
- Many spelling mistakes
- May do well on weekly spelling tests, but may have spelling mistakes in daily work
- Difficulty proofreading

Other common symptoms that occur with dyslexia

- Difficulty naming colors, objects, and letters rapidly, in a sequence (RAN: *Rapid Automatized Naming*)
- Weak memory for lists, directions, or facts
- Needs to see or hear concepts many times to learn them
- Distracted by visual or auditory stimuli
- Downward trend in achievement test scores or school performance
- Inconsistent school work
- Teacher says, "If only she would try harder," or "He's lazy."
- Relatives may have similar problems

Common characteristics of other related learning disorders

Individuals with dyslexia may have other related disorders. However, you can have dyslexia without other related disorders. Some of the co-existing disorders are described below.

Dysgraphia (*Handwriting*)

- Unsure of handedness
- Poor or slow handwriting
- Messy and unorganized papers
- Difficulty copying
- Poor fine motor skills
- Difficulty remembering the kinesthetic movements to form letters correctly

Dyscalculia (*Math*)

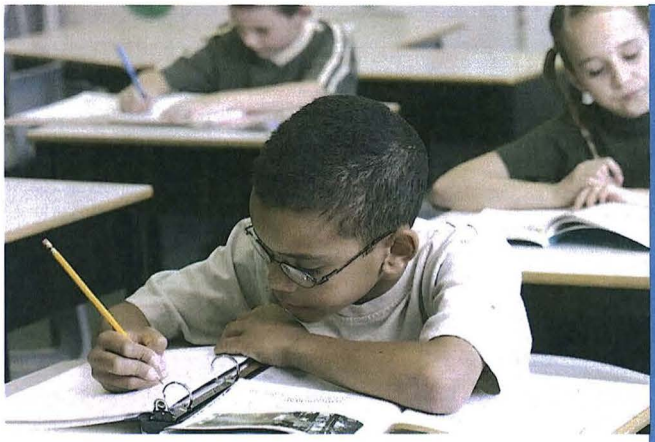
- Difficulty counting accurately
- May misread numbers
- Difficulty memorizing and retrieving math facts
- Difficulty copying math problems and organizing written work
- Many calculation errors
- Difficulty retaining math vocabulary concepts

ADHD- Attention-Deficit/Hyperactivity Disorder (*Attention*)

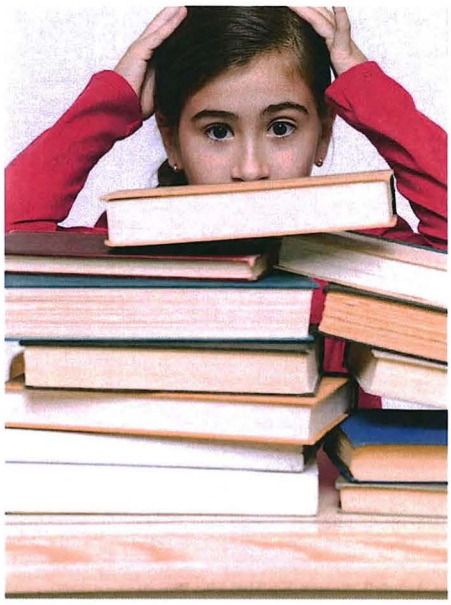
- Inattention
- Variable attention
- Distractibility
- Impulsivity
- Hyperactivity

Dyspraxia (*Motor skills*)

- Difficulty planning and coordinating body movements
- Difficulty coordinating facial muscles to produce sounds



Executive Function/Organization



- Loses papers
- Poor sense of time
- Forgets homework
- Messy desk
- Overwhelmed by too much input
- Works slowly

If your child is having difficulties learning to read and you have noted several of these characteristics in your child, he or she may need to be evaluated for dyslexia or a related disorder.

Common Questions Parents May Have

What kind of instruction does my child need?

Dyslexia and other related learning disorders cannot be cured. Appropriate instruction promotes reading success and alleviates many difficulties associated with dyslexia. Instruction for individuals with reading and related learning disabilities should be:

- **Explicit**- component skills for reading, spelling, and writing are explained, directly taught, and modeled by the teacher. Children are discouraged from guessing at words.
- **Systematic and cumulative**- has a definite, logical sequence of concept introduction; concepts are ordered from simple to more complex; each new concept builds upon previously introduced concepts, with built in review to aid memory and retrieval.
- **Structured**- has step-by-step procedures for introducing, reviewing, and practicing concepts.

Chapter 4 will provide additional information about appropriate instruction.

What is the appropriate reading instruction for a child with dyslexia?

Parents often ask, "What type of instruction does my child with dyslexia need in order to learn to read?" Almost ALL children with dyslexia can be taught to read if they are given specific, comprehensive, and intensive instruction. This structured approach to reading should be delivered by a highly trained teacher.

Does my child's school have a teacher qualified to teach reading to children with dyslexia?

It depends, but the odds are slim. Unfortunately, most preparation programs at universities and colleges, including departments of special education, literacy, and reading, have not prepared teachers adequately enough to meet the needs of students with dyslexia. Holding a graduate degree, a teaching license, or even a state reading endorsement does not necessarily mean that a teacher is a highly qualified teacher of reading as many of these credentials are easy to come by and lack rigor. Reading teachers must have a deep background in the structure of the language that underlies reading. Although there are good reading teachers scattered across the country in our schools today, many of these teachers have sought their training apart from a college degree or the requirements of state education departments and school systems.

Who is qualified to deliver this type of reading instruction?

IDA has published the *Knowledge and Practice Standards for Teachers of Reading*, which defines what teachers of reading need to know. In an effort to promote these standards, IDA is in the process of reviewing and accrediting organizations that align with the IDA standards. To date, those organizations include:

- Academic Language Therapy Association (ALTA)
- Alliance for Accreditation and Certification
- International Multisensory Structured Language Education Council (IMSLEC)
- National Institute of Learning Development (NILD)

IDA has also begun accrediting colleges and universities preparation programs across the country, which have coursework and practica that align to the IDA Standards. A listing of these accredited university programs can be found on the IDA website.

A highly knowledgeable and skilled teacher of reading, NOT a curriculum, teaches a child to read. According to a wise pioneer in the field of dyslexia, "A teacher who knows what to teach and how to teach it could use a stick in the sand to teach a dyslexic child to read." A good curriculum just makes the process even better!

What needs to be included in a remediation lesson for a child with dyslexia?

Although lessons vary somewhat from curriculum to curriculum, certain components are critical for the child with dyslexia. Below is a list of lesson components that are often included in dyslexia remediation.

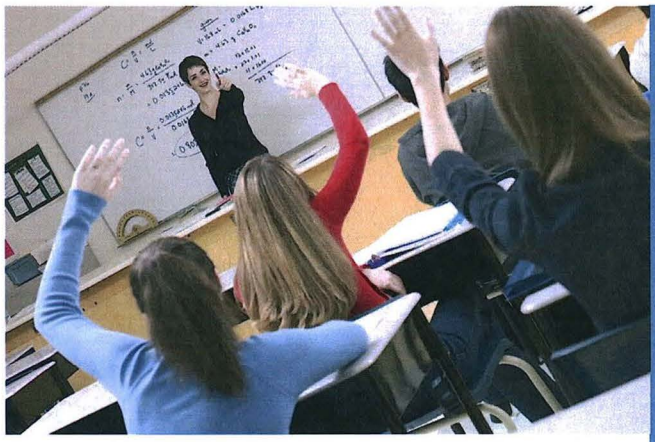
History of the Language

Introduce the history of the English language. This provides a meaningful platform for children to understand from where our language has come. Ultimately, it will allow children to understand the most basic layers of our language and how this affects both reading and spelling rules.

Alphabet

Make certain that the child is secure in his knowledge of the letters of the alphabet. The alphabet is the cornerstone for all reading and spelling. Many students with dyslexia may be able to "sing" or "chant" the alphabet, yet they cannot touch and name nor recognize each of the individual letters of the alphabet.

Phonemic Awareness



Include phonemic awareness activities in each lesson. For example, the word *cat* is made up of three phonemes, /k/ /a/ /t/, and the word *ship* is made up of three phonemes, /sh/ /i/ /p/. Phonemic awareness deficits are the underlying cause of dyslexia, and it is critical that children develop these skills. Practice must be independent of working with letters and must focus specifically on phonemes, or sounds.

Phonics

Instruction should be based upon the most reliable patterns in reading and spelling, starting with the most common and progressing to the most complex. Children should be given the skills necessary to "break the code."

Fluency

Fluency practice should be at the word level, and based upon common patterns of syllables, syllable division patterns, and morphemes (the smallest meaningful unit, such as *–ing*). Students with dyslexia also need to tackle *Instant Words*, those common words in English that don't "play by the rules." Yet they are the most common words in the English language, as well as the first words beginning readers encounter.

Comprehension

Comprehension, the ultimate goal of reading, should not be assumed to be a by-product of decoding. Children with dyslexia need explicit instruction in comprehension. Comprehension skills should include vocabulary, reasoning, grammar, analysis, and listening. Children should have exposure to these skills through both narrative and expository texts.

Spelling

Spelling is perhaps the single most difficult skill for dyslexics to master. Spelling instruction should be delivered through a highly systematic approach beginning with the most common and reliable patterns in the English language. Spelling instruction should reinforce skills being taught in reading.

Handwriting

Dyslexic students benefit from instruction in cursive handwriting. This instruction should focus on approach strokes, proportion, and directionality. Handwriting reinforces a multisensory approach to reading and spelling.

Study Skills and Learning Strategies

Children with dyslexia need guidance in developing effective and efficient study habits. Organization is often a weakness for children with dyslexia and they need guidance with time, space, and materials as well as an approach to the task at hand. This should include a variety of skills and strategies to help the student develop metacognition, or "thinking about thinking."

How often should my child be seen for reading remediation?

Children need repeated practice until mastery. For most children, the highest success rates come when children receive daily practice with the support and direction of a qualified professional.

What else can I do to help my child with dyslexia?

Read to your child and help develop listening skills. Take advantage of recorded audio books such as those from Learning Ally. Help your child develop a love of listening as well as an appreciation for good literature.

Seek an evaluation from a qualified professional to determine your child's specific profile of dyslexia.

Be cautious of false claims of "cures" for dyslexia. They are abundant and expensive, and appeal to parents as they offer a "quick fix." Some of these include colored lenses or overlays, vision therapy, and brain training. [See *Learning Disabilities, Dyslexia, and Vision.* American Pediatric Journal, Vol. 127 No. 3, March 1, 2011]

3

Valid Assessments for Dyslexia

It is important to understand what a good assessment of dyslexia will include. In this chapter, you will learn about the evaluation process. You will become familiar with the various components of a valid assessment. This will help you to ask specific questions of the professional who will conduct the assessment. You want to make sure that the assessment is comprehensive and will include recommendations not only for intervention but the appropriate documentation for testing and classroom accommodations that will help the individual with dyslexia.

Introduction

When a child is struggling to read, someone will probably suggest that he or she be tested for dyslexia. What does it mean to be tested? You might think of a test as something you take in an afternoon. Someone scores it and tells you how you did. *Evaluation* is a more accurate word to describe the process of determining if someone has dyslexia. The word *evaluation* encompasses identification, screening, testing, diagnosis, and all the other information gathering involved when the student, his or her family, and a team of professionals work together to determine why the student is having difficulty and what can be done to help.

Why is evaluation important?

An evaluation is the process of gathering information to identify the factors contributing to a student's difficulty with learning to read and spell. First, information is gathered from parents and teachers to understand development and the educational opportunities that have been provided. Then, tests are given to identify strengths and weaknesses that lead to a diagnosis and a tentative road map for intervention.
Conclusions and recommendations are developed and reported.

When a student is having difficulties with reading and spelling, an evaluation is important for ***three reasons.***

1. ***Diagnosis-*** An effective evaluation identifies the likely source of the problem. It rules out other common causes of reading difficulties and determines if the student profile of strengths and weaknesses fit the definition of dyslexia.

2. ***Intervention planning-*** An effective evaluation develops a focused remedial program. Students who have a specific learning disability in reading (dyslexia) need a specialized approach to reading instruction to make progress. It is crucial that this specialized instruction begin at the student's current level of reading skill development, rather than at the student's grade level. An effective evaluation helps parents and teachers see which specific skills are weak and where reading and spelling instruction should begin.

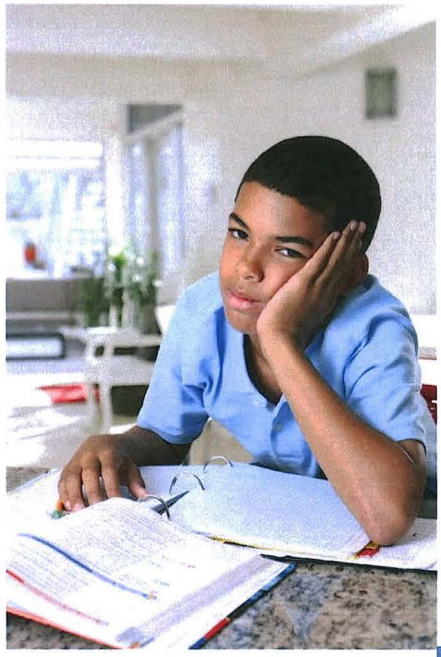
3. ***Documentation-*** An effective evaluation documents the history of a student's learning disability. One purpose of this documentation is to determine eligibility for special services, including special education. Documentation is also important for obtaining accommodations in college, or in the workplace.

When should a child be evaluated?

It is possible to identify potential reading problems in young children even before the problems turn into reading failure. Screening tests, such as Predictive Assessment of Reading (PAR); Dynamic Indicators of Basic Early Literacy Skills (DIBELS); Texas Primary Reading Inventory (TPRI); and AIMSweb screening assessments, developed by researchers for those purposes should be used with all children in a school. The process can begin in kindergarten, to locate those students who are "at risk" for reading difficulty. Preventive intervention should begin immediately, even if dyslexia is suspected. How the child responds to supplementary instruction will help determine if special education services are justified and necessary.

Before second grade, it is more important to focus an evaluation on the precursors of reading development. Measures of language skills, phonological awareness, memory, and rapid naming are more suggestive of being at-risk for dyslexia among young children than are measures of word reading, decoding and spelling.

Therefore, measures of phonological awareness, memory, and rapid naming are typically included in Kindergarten and beginning of first grade. Screening tests can identify children who need targeted intervention to improve these critical skills so these children can meet grade-level benchmarks. Although there are many tests that may be used (in Kindergarten and beginning of first grade) to assess beginning skills in reading and spelling, the standards for average achievement are generous. A child in late kindergarten or early first grade may only need to read a few letters and two or three common words to score well enough to reach a score of "average." Compared to other young learners, students with dyslexia may not seem to be "behind." Further, even if achievement is found to be low or poor, it does not explain why the child may not be learning as expected.



By January or February of first grade, tests of early word reading, decoding, and spelling begin to be useful in providing information about what the student has learned and what gaps in knowledge exist. This information may be used to plan instruction and guide ongoing assessment.

What should be included in the evaluation?

The following areas should be considered when carrying out an evaluation.

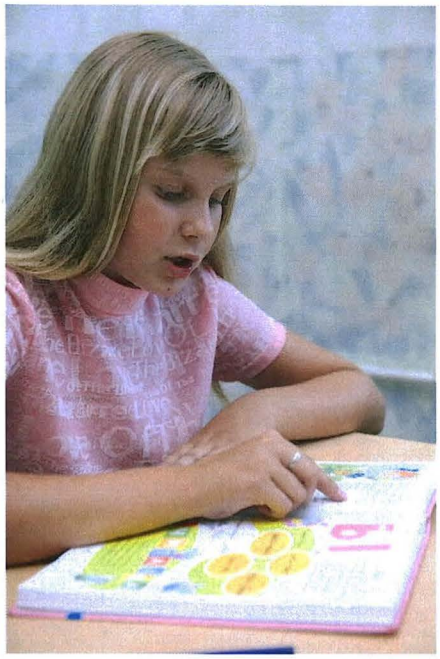
Background information

Information from parents and teachers tells us a lot about a student's overall development and pattern of strengths and weaknesses. Because dyslexia is genetically linked, a family history of dyslexia indicates that a student is more likely to have dyslexia. A history of delayed speech or language also puts a child at risk for reading difficulties. It is important to know the types and length of time of any interventions the student has received at school, home, or through tutoring, as well as the student's response to the intervention. School attendance problems should be ruled out. A history of poor attendance, alone, can explain an identified weakness in skill development.

Intelligence

Until recently, an intelligence test was considered to be a necessary part of the evaluation because the diagnosis of a learning disability was based on finding a significant difference between IQ and reading skill. Poor achievement despite average or better intelligence was considered a key indicator. Current regulations no longer require that such a discrepancy be present when making a diagnosis. This change in the regulations came about because many studies have shown that intelligence is <u>not</u> the best predictor of how easily a student will develop written language (reading and spelling) skills. Instead, oral language abilities (listening and speaking) are considered the best predictors of reading and spelling.

A formal measure of intelligence is not always needed to document average intellectual abilities. For younger children, parent information about language development and teacher information about the child's ability to learn orally may indicate average intellectual abilities. For older students or adults, past achievement in school or work may indicate at least average intelligence.



Oral language skills

Oral language, simply stated, refers to the ability to listen to and understand spoken language as well as to express thoughts through spoken language. Oral language is made up of basic skills, such as recognizing and making the sounds within speech. These are skills that are needed for accurate and automatic word reading. Higher-level skills, such as getting meaning by listening to someone speak or creating sentences to express thoughts are needed for comprehension. Students with dyslexia typically have adequate higher-level language skills. Indicators of higher-level oral language skills include being able to understand an age-appropriate story and spoken directions, to carry on a conversation, and to understand and use words that are age appropriate. If a student has average higher-level oral language skills but much difficulty developing written language (reading and spelling) skills, the need for evaluation for dyslexia is recommended.

Although students with dyslexia usually have strong higher-level language skills, they typically have problems (a deficit) in basic language skills (see following section "Phonological processing"). This deficit limits the ability to learn to read and spell using the sounds of the language. Young children with dyslexia often have delays in language development, but their higher-level language skills are usually age-appropriate by the time they enter school. Difficulties with higher-level language skills suggest a need for a language evaluation by a speech-language pathologist to rule out language impairment.

Word recognition

Word recognition is the ability to read single printed words. It is also called word reading or word identification. Tests of word recognition require that students read individual words printed in a list. The student is not able to use cues, such as the meaning of a sentence, to help them figure out the word. Tests of word recognition that score both accuracy and the time it takes for the student to read the words (fluency) are particularly useful. Students with dyslexia often become accurate but are still very slow when reading words. Both accuracy and the speed of word reading can affect understanding of what is read.

Decoding

Decoding is the ability to read unfamiliar words by using letter-sound knowledge, spelling patterns and chunking the word into smaller parts, such as syllables. Decoding is also called "word attack." Decoding tests should use nonsense words (words that look like real words but have no meaning, such as *frut* or *crin*) to force the student to rely on these decoding skills rather than on memory for a word already learned.

Spelling

Tests of spelling measure the student's ability to spell individual words from memory using their knowledge of, for example, letter-sound pairings, patterns of letters that cluster together to spell one sound (*igh* in high; *oa* in boat), the way plurals may be spelled (*s, es, ies*) and so on. Spelling is the opposite of word attack but it is more difficult. It requires separating out the individual sounds in a word, remembering the different ways each sound might be spelled, choosing one way, writing the letter(s) for that sound and doing the same, again, for the next sound in the word. Spelling stresses a child's short and long-term memory and is complicated by the ease or difficulty the child has in writing the letters, legibly and in the proper order. Spelling is usually the most severe weakness among students with dyslexia and the most difficult to remediate.

Phonological processing

Phonology is one small part of overall language ability. It is a low-level language skill in that it does not involve meaning. Phonology is the "sound system" of English. Spoken language is made up of words, word parts (such as syllables), and individual sounds (phonemes). We must be able to think about, remember, and correctly sequence the sounds in words in order to learn to link letters to sounds for reading and spelling. Good readers do this automatically without conscious effort. However, students with dyslexia have difficulty with identifying, pronouncing, or recalling sounds. Tests of phonological processing focus on these skills.

Automaticity/fluency skills

Students with dyslexia often have a slow speed of processing information (visual or auditory). Tasks should measure Naming Speed (also called Rapid Automatic Naming). Sets of objects, colors, letters, and numbers are often used. These items are presented in rows on a card, and the student is asked to name each as quickly as possible. Naming speed, particularly letter naming, is one of the best early predictors of reading difficulties. Therefore, it is often used as part of screening measures for young children. Slow naming speed results in problems with developing reading fluency. It also makes it difficult for students to do well on timed tests. Students with both the naming speed deficit and the phonological processing deficit are considered to have a "double deficit." Students with the "double deficit" have more severe difficulties than those with only one of the two.

Reading comprehension

Typically, students with dyslexia score lower on tests of reading comprehension than on listening comprehension. This is because they have difficulty with decoding and accurately or fluently reading words. It is important, however, to be aware that students with dyslexia often have strong higher-level oral language skills and are able to get the main idea of a passage despite their difficulty with the words. Further, reading comprehension tasks usually require the student to read only a short passage to which they may refer when finding the answers to questions. For these reasons, students with dyslexia may earn an average score on reading comprehension tests but still have much difficulty reading and understanding long reading assignments in their grade-level textbooks.

Vocabulary knowledge

It is important to test vocabulary knowledge because vocabulary greatly affects listening and reading comprehension. Difficulties students with dyslexia might have had in learning language or with memory can affect the ability to learn the meanings of words (vocabulary). Independent reading is also an important means for developing new vocabulary. Poor readers, who usually read less, are likely to have delays in vocabulary development. It is important to note, however, that students with dyslexia may perform poorly on reading vocabulary tests because of their decoding problems and not because they don't know the meaning of some words. For this reason, it is best to administer both a reading and listening vocabulary task to get a true measure of vocabulary knowledge.

The profile of strengths and weaknesses of an individual with dyslexia varies with age, educational opportunity and the influence of co-occurring factors such as emotional adjustment, ability to pay attention in learning situations, difficulties with health or motivation. Nevertheless, clusters of distinguishing characteristics are frequently noted.

<u>Family History and Early Development</u>

- Reports or reading/spelling difficulties across generations in the family
- Normal prenatal and birth history
- Delays/difficulties acquiring speech/language

Early Childhood/Primary Grades

- Difficulty with rhyming, blending sounds, learning the alphabet, linking letters with sounds
- Difficulty learning rules for spelling- spell words the way they sound (e.g., *lik* for *like*); use the letter name to code a sounds (*lafunt* for *elephant*)
- Difficulty remembering "little" words- *the, of, said*- that cannot be "sounded out"
- Listening comprehension is usually better than reading comprehension- may understand a story when read to him but struggles when reading the story independently

Middle and Secondary School

- Reluctant readers
- Slow, word-by-word readers; great difficulty with words in lists, nonsense words and words not in their listening vocabulary
- Very poor spellers- misspell sounds, leave out sounds, add or leave out letters or whole syllables
- Non-fluent writers- slow, poor quality and quantity of the product
- When speaking, may have a tendency to mispronounce common words (floormat for format); difficulty using or comprehending more complex grammatical structures
- Listening comprehension is usually superior to performance on timed measures of reading comprehension (may be equivalent when reading comprehension measures are untimed)
- Weak vocabulary knowledge and use

Outcomes of an evaluation

An evaluation should result in a written report. This report should detail the kinds of information collected. This includes information related to the family literacy history, any significant medical issues the child may have, prenatal and birth conditions, and preschool development, including language learning. The education history should include information on school attendance, tests administered and test scores. These scores should be stated as standard scores. Standard scores compare the learner to others of the same age or grade. This material should provide the framework for the detailed evaluation of relative strengths and weaknesses across the various skill areas assessed as well as the overall fit of all information with the typical profile of dyslexia at the child's age. This should lead to a tentative diagnosis that states that the child's ability to learn to read, write and spell does or does not appear to be related to dyslexia. The specific evidence that supports the diagnosis should be explained in the report.

Diagnosis

A diagnosis of dyslexia begins with the gathering of information gained from interviews, observations and testing. This information may be collected by various members of a team that includes including the classroom teacher(s), speech/ language pathologist, educational assessment specialist(s), and medical personnel (if co-occurring difficulties related to development, health or attention are suspected).

The task of relating and interpreting the information collected should be the responsibility of a professional who is thoroughly familiar with the important characteristics of dyslexia at different stages in the development of literacy skills. This professional should also have knowledge of the influence of language development and behavior on literacy learning. Often, school psychologists and/or speech-language pathologists are responsible for this task.

CAUTION: An initial diagnosis of dyslexia should be offered only as a tentative conclusion based on the data available. A poor reader may appear to "fit the profile" of dyslexia. However, if the learner responds quickly to appropriate intervention, the source of the reading problem is more likely related to earlier educational opportunity than to problems in the child's physical makeup that limit the ability to learn from the instruction provided. The ability of the learner to benefit from instruction that is focused on the basic skills that support reading and spelling provides valuable information necessary to support or reject the initial diagnosis.

Intervention planning

Finally, the report should identify instructional programs that appear to be appropriate in meeting the specific skill gaps and weaknesses identified through the evaluation process. Many children have already mastered some beginning reading skills. Therefore, it is not always necessary or reasonable for a child to be placed in the very beginning lessons of a program. Although some programs have a placement test which helps the teacher to know where instruction should begin, many do not. For this reason, information about the child's specific skill needs should be detailed in the report to assist in identifying the starting point for instruction. Recommended programs or intervention strategies should be consistent with the types of content and methods that research has shown to be effective for students with dyslexia and other poor readers. If warranted, a recommendation for further testing- vision, hearing, fine motor control (occupational therapy), attention, emotional adjustment-might also be included.

Documentation

The evaluation report should provide the documentation necessary to determine eligibility for special services, including special education. The specific guidelines for determining eligibility are based on federal regulations set forth by the Individual with Disabilities Education Act (IDEA). It is important to note, however, that the specific criteria, such as cutoff scores for eligibility, vary from state to state.

The parent or guardian of a child with dyslexia must advocate for the best possible educational opportunities for that child. Effective advocacy requires understanding the diagnostic report and knowing the child's rights under the law. Information on related topics, such as teaching methodologies, accommodations, and instructional modifications are available in IDA fact sheets.

4

Identifying Effective Instruction – Structured Literacy

In this chapter you will learn about effective instruction known as Structured Literacy. Schools need to provide structured literacy instruction for students to achieve high levels of literacy. Learn about the components of Structured Literacy and how it is taught. Also learn about IDA's Knowledge and Practice Standards for Teachers of Reading.

Introduction to Structured Literacy

Instruction that is supported by research is explicit, systematic, and cumulative. In other words, there is a plan; the instruction is *structured*.

This evidence-based approach integrates listening, speaking, reading, and writing. That is, the instruction incorporates all aspects of *literacy*.

This instruction embodies and defines *Structured Literacy*.

Structured Literacy emphasizes the structure of language, including the speech sound system (phonology), the writing system (orthography), the structure of sentences (syntax), the meaningful parts of words (morphology) and the relationships among words (semantics), and the organization of spoken and written discourse. The integration of listening, speaking, reading, and writing makes this instruction multisensory.

The ultimate goal of *Structured Literacy* is the development of deep levels of comprehension and expression and lifelong reading and writing habits. Although all aspects of this instruction are essential for students with dyslexia, this instruction also enhances the reading and academic achievement of all students.

The Content of Structured Literacy – What is Taught

Structured Literacy instruction is marked by several elements. The intensity and inclusion of these elements in instruction will vary according to student needs. Student needs are determined through continuous progress monitoring.

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 sentences, 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 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 greater accuracy in reading the word.

Morphology

Morphology is the study of morphemes, 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.

The Principles of Instruction – How It Is Taught

Structured Literacy is distinctive in how critical elements are taught. The instruction adheres to the following principles.

Systematic and Cumulative

Structured Literacy instruction is systematic and cumulative. Systematic means that the organization of material follows the logical order of the language. The sequence must begin with the easiest and most basic concepts and elements and progress methodically to more difficult concepts and elements. Cumulative means each step must be based on concepts previously learned.

Explicit Instruction

Structured Literacy instruction requires the deliberate teaching of all concepts with continuous student-teacher interaction. It is not assumed that students will naturally deduce these concepts on their own.

Diagnostic Teaching

The teacher must be adept at individualized instruction. That is, instruction that meets a student's needs. The instruction is based on careful and continuous assessment, both informally (for example, observation) and formally (for example, with standardized measures). The content presented must be mastered to the degree of automaticity. Automaticity is critical to freeing all the student's attention and cognitive resources for comprehension and expression.

The History and Efficacy of Structured Literacy – How It Began and Why it Works

Dr. Orton and his colleagues began using multisensory techniques in the mid-1920's at the mobile mental health clinic he directed in Iowa. Dr. Orton was influenced by the kinesthetic method described by Grace Fernald and Helen Keller. He suggested that kinesthetic-tactile reinforcement of visual and auditory associations could correct the tendency of confusing similar letters and transposing the sequence of letters while reading and writing. For example, students who confuse ***b*** and ***d*** are taught to use consistent, different strokes in forming each letter. Students make the vertical line before drawing the circle in printing the letter ***b***; they form the circle before drawing the vertical line in printing the letter ***d***.

Anna Gillingham and Bessie Stillman based their original 1936 teaching manual for the "alphabetic method" on Dr. Orton's theories. They combined multisensory techniques with teaching the structure of written English, including the sounds (phonemes), meaning units (morphemes such as prefixes, suffixes, and roots) and common spelling rules. The phrase "Orton-Gillingham approach" refers to the structures, sequential, multisensory techniques established by Dr. Orton, Ms. Gillingham, and their colleagues. Many programs today incorporate methods and principles first described in this foundational work, as well as other practices supported by research.

Current research, much of it supported by the National Institute of Child Health and Human Development (NICHD), has demonstrated the value of explicit, structured language teaching for all students, especially those with dyslexia. Programs that work differ in their techniques but have many principles in common. The multisensory principle that is so valued by experienced clinicians has not yet been isolated in controlled, comparison studies of reading instruction, but most programs that work do include multisensory practice for symbol learning. Instructional approaches that are effective use explicit teaching of letter-sound relationships, syllable patterns, and meaningful word parts, and provide a great deal of successful practice of skills that have been taught. Fluency-building exercises, vocabulary instruction, language comprehension and writing are also included in comprehensive programs of instruction and intervention. Word recognition and spelling skills are applied in meaningful reading and writing of sentences and text passages, and students receive immediate feedback if they make mistakes. Guessing at words and skipping words are discouraged and replaced by knowledge of how to analyze and read unknown words.

Students with dyslexia often exhibit weaknesses in underlying language skills involving speech sound (phonological) and print (orthographic) processing and in building brain pathways that connect speech with print. The brain pathways used for reading and spelling must develop to connect many brain areas and must transmit information with sufficient speed and accuracy. Most students with dyslexia have weak phonemic awareness, meaning they are unaware of the role sounds play in words. These students may also have difficulty rhyming words, blending sounds to make words, or segmenting words into sounds. Because of their trouble establishing associations between sounds and symbols, they also have trouble learning to recognize words automatically ("by sight") or fast enough to allow comprehension. If they are not accurate with sounds or symbols, they will have trouble forming memories for common words, even the "little" words in students' books. They need specialized instruction to master the alphabetic code and to form those memories. In short, these students need *Structured Literacy* instruction.

The IDA Knowledge and Practice Standards – What Teachers of *Structured Literacy* Should Know and Be Able to Do

Research has demonstrated that when reading is taught by highly knowledgeable and skilled teachers of reading, all but the most severe reading difficulties can be resolved or, at the very least, greatly improved. The question is, "What is meant by *highly knowledgeable and skilled*?"

To answer this question, IDA wrote the *Knowledge and Practice Standards for Teachers of Reading.* These standards outline what teachers of reading – classroom teachers, therapists, practitioners, interventionists, clinicians, and literacy volunteers – must know and be able to do to teach reading well to any student, especially those students with dyslexia. The IDA Standards can be found at www.interdys.org.

In addition to defining the quintessential teacher of reading, the IDA Standards serve as the metric to measure the quality of programs that prepare teachers of reading. Ultimately, these standards will determine whether a teacher has acquired the knowledge and skills necessary to teach reading well. That determination will be based on satisfactory completion of coursework, successful completion of a supervised practicum, and demonstration of competency on a certification exam—all of which are based on the IDA Standards. IDA has taken that first steps to making sure that there is a highly knowledgeable and skilled teacher of reading who employs *Structured Literacy* in every classroom.

5

Managing the Education of a Student with Dyslexia

In this chapter you will learn important advice for how to manage the education of a student with dyslexia. You will also learn some tips for activities that you should incorporate each and every day that will enhance language and literacy skills.

Foremost, Educate Yourself

Attend conferences, read suggested books, and network with parents who "have been there." Listen attentively and read carefully. Learn all you can about the nature of your child's learning difficulties. Take notes of particular parenting or academic strategies that have been successful, ones that you think might work for your child. By educating yourself, you not only maintain self-confidence to help you deal with professionals in the field, but also, you are in a stronger position for making informed decisions about your child's educational career and emotional life.

Create a Notebook of Your Child's Work

Invest in a 3-ring hole punch and buy a 3-ring binder. Compile your child's work-everything from crinkled homework sheets, to returned tests, to workbook pages. Organize the papers chronologically and by subject matter. Include anecdotal information as well. Bring it to meetings as written documentation of your child's progress (or lack of progress). As a chronicle of your child's day-to-day work, you are in a good position to do your own analysis. For example, one parent discovered that her son's poor grades on math tests were not a reflection of his misunderstanding of the concept, but a simple mechanical error such as he forgot to reduce fractions to the lowest common denominator. In this case, it was a parent who uncovered the problem.

Keep Your Expectations High

Too often teachers and parents lower their expectations *because* of their child's learning difficulties, when, in fact, these children need high standards and reasonable goals. When expectations are high, students are forced to face their difficulties. Within a supportive and encouraging environment, they will learn how to cope. Yes, there will be times of setbacks and moments of frustration, but that doesn't mean to lower your standards, it means to help your child persevere in the face of adversity.

Visit Your Child's Classroom Often

Volunteer your time in your child's classroom in any capacity. First, it allows you to see how your child functions in comparison to their peers. Second, it increases your quantity time with the teacher. Your goal is to foster a close working relationship between you and the teacher. Your child will benefit from these frequent interactions because you will be "in the know," specifically in terms of assignment expectations. Further, you will have an "insider's view" of the teacher's teaching style. With this perspective, you will certainly feel more empowered when managing your child's education, in general, and more able to help with individual homework assignments.

Keep a File of Potential References

Who might be included in this file? For starters, names of reputable tutors who are trained in structured literacy and can help your child learn to read. The name of a pediatrician who understands learning difficulties is a must. If you have medication issues that need careful attention, you will want to choose a doctor who is not only sympathetic, but knowledgeable about your child's special needs. A counselor who deals specifically with emotional support and educational planning such as college placement for children with learning difficulties may be a useful resource. A reliable advocate is another resource to include in your file. This person may be an objective partner who can accompany you to those sometimes arduous and emotionally-charged school meetings. A psychologist who treats children and adolescents with learning disabilities may be a name to store in your file. Adolescence is a trying time for most students, but it may present unique problems for children with learning disabilities. Contact information of school administrators and teachers is helpful when you have questions or need help in planning for your child's academic future and success.

Be Patient on "Off" Days

An "off" day is when things just aren't in sync for your child. His or her oral reading, which may typically be slow, but accurate, is inexplicably slower and beset with multiple inaccuracies and retrieval difficulties. You'll know it is an "off" day not only by the increase in subtle distress signals such as yawning and heavy sighs, but also by a change in his or her general tolerance level. As a parent, keep in mind that inconsistency is part-and-parcel of having learning disabilities. It is important to help your child recognize these days and acknowledge feelings of frustration and discouragement. It is equally important to help your child develop strategies to manage these days. On a particularly heavy homework night, you may need to do a greater share of reading, be a scribe for the upcoming book report, or put off practicing math facts for a better day. Again, reassure your child that "off" days will occur, knowing that tomorrow will be a better day.

Read Aloud With Your Child Every Day

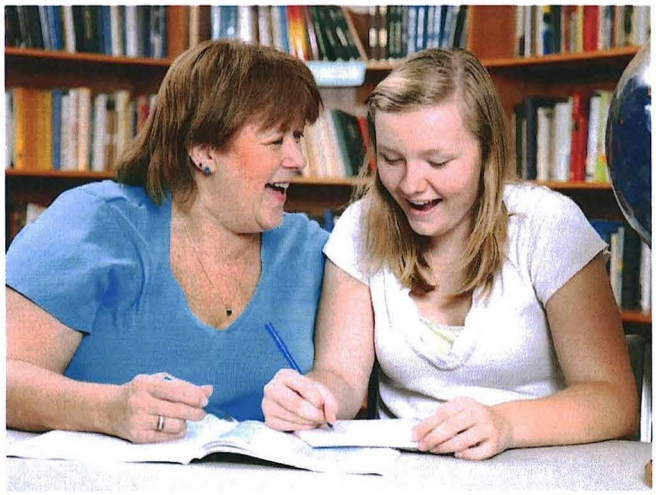
Reading to your child makes a difference, not only in improving general comprehension and vocabulary, but in improving decoding skills as well. While your child is being remediated for underlying decoding difficulties, they are most likely reading controlled texts (ones which include sound concepts that have been taught). Once they "graduate" to less controlled texts, they will encounter words containing a greater variety of sound concepts, perhaps some that have not yet been formally introduced. At this point, they must rely on decoding skills to figure out the intended pronunciation of a seemingly unfamiliar word. If that word is in his or her oral vocabulary (learned from listening to language), then chances of reading the intended pronunciation when reading independently is much greater than if the word was not in his or her oral vocabulary. Those students, who have been widely read to, have a distinct advantage to those students who have not had the same exposure to language.

Let Your Child Be An "Expert"

Whether it be a non-academic skill such as sewing, tree house building, or drawing- or whether it be a storehouse of knowledge about a specific subject, such as animals, sports, movies, computers, or music-help your child develop an area of expertise. Why? It can become a topic for open-ended writing assignments or oral reports. This area of expertise may develop into a life-long hobby, providing hours of fun and personal satisfaction. It may also provide opportunities for your child to shine in front of his or her peers and meet others who share a common interest. This is one way long-lasting friendships begin.

Start A Dialogue With Your Child

Talk to your child about his or her learning difficulties. Be honest. Be matter-of-fact. Your goal is to demystify the notion that something is "wrong." Your child already senses that. Help your child acknowledge his or her feelings and put learning difficulties into perspective. A starting point may be to have a specific conversation about strengths and weaknesses, or talk in general terms about how people with learning difficulties have special minds that just happen to learn differently. What you've done is establish the groundwork for a conversation that is going to continually mold itself over the years. As this dialogue develops, by the middle and high-school years, you may want to steer this conversation toward helping your child become his or her own advocate. Role-playing should be an integral part of the dialogue by this time.



Keep a Sense of Humor

Learning is a challenging, often a painful experience for children with learning difficulties. They need laughter in their lives, and lots of it!

6

Transitioning to College

This chapter includes information on when and how to start planning for the transition to college. Learn specific tasks such as securing accommodations for standardized testing and the common questions and answers that most families will find helpful during this phase of the educational process.

Introduction

An increasing number of students with learning and attention disorders plan to attend college, and that is great news. However, negotiating the process of taking standardized tests (possibly with accommodations), choosing the right colleges, and navigating the application process, can be overwhelming, even for the most organized student. Those who successfully gain acceptance to the schools of their choice are often frustrated to find that the accommodations they received in high school are not automatically granted in college. For students with learning disabilities (LD), making a successful transition to college is a multi-year process and a team effort that requires input from the student, parents, school personnel, and other professionals.

When is the best time to start planning the transition?

Federal regulation, Section 614 (D)(I)(vii)(II), requires that "beginning at the age of 16 (or younger, if determined appropriate by the IEP Team), a statement of needed transition services for the child, including, when appropriate, a statement of the interagency responsibilities or any needed linkages," needs to be included in educational planning. The "statement of needed transition services" is a long-range plan to assist students in their steps toward adult life. Some states require that these services begin even earlier when the child is age 14.

For the Individual Education Program (IEP) to be most beneficial it should be an outcome-driven document, meaning that the goals set in the IEP should focus on exactly what the student plans to do when he or she graduates from high school. To do this effectively, the student's post-secondary goals should be delineated early, and it is, at least in part, the school's obligation to help the student secure the skills needed to achieve this goal.

The table in this chapter provides a timeline of activities that will help students and their parents prepare for the transition from high school to college.

Grade Level	Activity/Task
Ninth and tenth	• Discuss options for after high school (for example, gap year, employment, vocational school, community college, or four-year university). • Develop self-advocacy skills. Make sure the student understands and can articulate his or her learning struggles and why accommodations are needed. The student should actively participate in IEP meetings and practice self-advocacy skills in those meetings. • Explain strengths and weaknesses to the student to develop his or her understand for more effective self-advocacy.
Tenth	• Prepare for standardized testing (by the end of the year): o Apply for accommodations; and o Take test preparation course.
Eleventh	• Register for SAT or ACT. • Investigate colleges. • Make a list of criteria for selecting a college (for example, class size, availability of support services, and finances) with the help of parents and school personnel. • Encourage participation in extracurricular and leadership activities as well as community service. Admission counselors are looking for applicants who are actively engaged in their schools and communalities. • Visit prospective schools (by spring).
Twelfth	• Eliminate some schools to shorten list of prospective of schools before applying. • Finalize applications by mid-November. (Support from parents and school personnel is very important at this stage. Students with organizational challenges may find it daunting to simultaneously secure letters of reference, write essays, and complete forms while also keeping up with regular academic demands.) • Communicate regularly with school administration to be certain that the student has the academic requirements needed to graduate from high school and apply to the colleges he or she wishes to attend.
Twelfth (summer after)	• Develop independent living skills (for example, refilling medications and doing laundry). • Communicate regularly with the appropriate office at the college of choice to secure accommodations prior to arriving in the fall. Once on campus, students will need to learn to access various resources and implement strategies such as maintaining a calendar, using the library, and becoming involved in study groups.
College years	• Plan and schedule carefully, monitor and modify the original plan for accommodations as necessary.

How can the student secure accommodations on standardized testing (SAT, ACT, and AP tests)?

Parents should contact the student's guidance counselor (or the person at the student's school that coordinates testing) several months before the student plans to take a standardized test. This person will need a copy of any school or outside psychological testing that the student has had completed. The counselor or coordinator will complete the appropriate paperwork, and the parents will have to sign an accommodation request form to be sent to the ACT or SAT College Board office.

How does the student prepare the documentation and test application when requesting accommodations on standardized tests?

Admissions testing policies and procedures vary and are updated from time to time, so the student and his or her parents are encouraged to go to the test's website and review the documentation policy statement for each test the student plans to take. In general, they will need to do the following:

- Make sure the documentation is current according to the guidelines put forth by the various testing entities. Shelf life of the documentation varies by diagnosis and testing entity, so check the various testing websites frequently for documentation requirements. Some students may not need to submit documentation and, in some cases, only an update, rather than a full evaluation, is required.
- If the student must update testing, be sure to share with the examiner a copy of the documentation requirements put forth by the different testing entities on their websites. Keep in mind that the documentation must provide a strong rationale for any disability-related accommodations.
- Plan well in advance. Accommodation requests are due months before the actual test date. If a re-evaluation is needed, it may take weeks or months to complete, and once the test application is submitted, the review process can take six to eight weeks.

What services are typically available at college?

- Colleges and universities offer several types of programs for students with LD, including:
- **Structured Programs** (SP) - comprehensive programs that may have additional costs associated with them. These services might include separate admission procedures, compulsory strategies, one-on-one tutoring, and student monitoring.
- **Coordinated Services** (CP) - services that are used as needed, these services are not comprehensive, they have less structure, and participation is voluntary.
- **Services** (S) - the least comprehensive services of the three categories. Students who require minimum accommodations, but find comfort in knowing services are available, might benefit from exploring colleges that provide these.

When should the student make contact with college's office of support services?

Most students benefit from making contact with the coordinator or director of the disability services office in their junior year of high school. It gives the student time to learn the types of support the school offers and determine if the college or university can accommodate his or her needs.

May students use an IEP or 504 Plan when they attend college?

Section 504 of the Rehabilitation Act of 1973, the Americans with Disabilities Act of 1990, and amendments to that Act in 2008 apply very differently at the college level than K-12.

The IEP and 504 Plan do not apply in the post-secondary school setting. Updated testing may be necessary for the coordinator in the office of support services at the college to review.

Testing for most post-secondary schools should be done when the student is at least 16 years old because schools want the "adult versions" of psychological tests, which can be administered when the student reaches age 16. The Association on Higher Education has proposed seven essential elements of documentation at the college level, and most schools, although not all, have adopted this or a similar list (see each college's website for specific documentation requirements):

1. Documentation is provided by a licensed or otherwise properly credentialed professional with appropriate training and experience.
2. Documentation contains a clear diagnostic statement that describes how the diagnosis was made, provides information about the functional impact of the disability, and details prognosis.
3. Documentation may contain both formal and informal methods of evaluation. Formal, standardized assessment may include diagnostic criteria, methods and procedures, tests and dates of administration, and a clinical narrative. Informal methods might include, among other things the history of accommodations, educational situations, and the extent of the disability's impact, but it should not be used solely to make a case for accommodations.
4. Documentation should contain information on how learning is currently affected. Currency of documentation, while important, should be flexible and will vary by intuition and diagnosis.
5. Documentation should provide information on any expected or cyclical changes in the functional impact of the disability over time and context and any known or suspected environmental impacts.
6. Documentation should be comprehensive in that it includes a description of both current and past auxiliary aids, assistive devices, support services, and accommodations, including their effectiveness in the educational setting.
7. Documentation that includes recommendations from professionals with a history of working with the student is often useful for determining effective accommodations.

At the college level, it is the student's responsibility, rather that the school's, to initiate the process for services and accommodations, and accommodations are not retroactive. For these reasons, it is wise to secure accommodations well before the first day of class of the freshman year.

What are the most basic accommodations offered by colleges and universities?

Most post-secondary schools provide students with LD with a minimum of three accommodations: extra time on tests, testing in a quiet location, and access to a note taker. However, the logistics of how these accommodations are provided varies widely among schools. For example, at some colleges, students can take tests in a testing center with oversight by a proctor; whereas, at other colleges it is the professor's responsibility to oversee testing

accommodations. At some schools, note takers are paid for their service and are, therefore, readily available; whereas, at other schools it is a volunteer position. In that case, if no student steps forward, no note taker is available. Again, inquiries about the implementation of accommodations should be sent directly to the college.

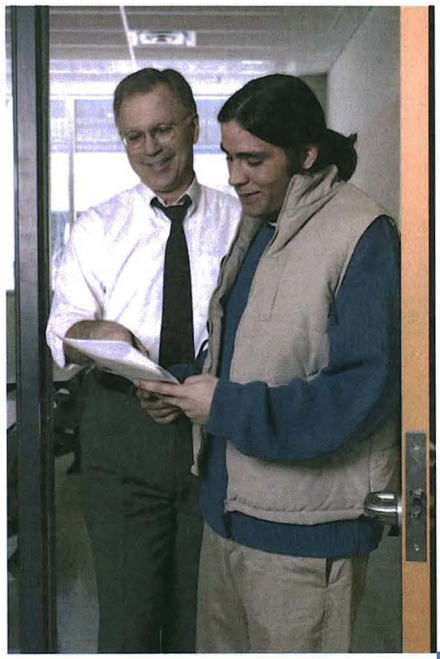
If a student has a language waiver in high school, can he or she also get one in college?

Success in securing a language waiver in college depends on where the child attends college and the types of services offered there. The support services office will review the student's updated psychological evaluation along with the reason(s) for the language waiver from the high school. If a college language waiver is being considered, the parents should inform the evaluator when seeking re-evaluation in case specific tests are required.

Should the student disclose a learning disability during the application process?

Deciding whether or not to disclose a LD is a highly personal choice. Many consultants agree that the value of disclosing depends on the severity of the disability, the comfort level of the parents and student with disclosure, the level of competiveness of college of choice, and the presence of any "compelling reason" to disclose. Compelling reasons might include abnormalities in the high-school transcripts, such as an absence of foreign language credits, or requiring that the college have a highly specialized LD service program.

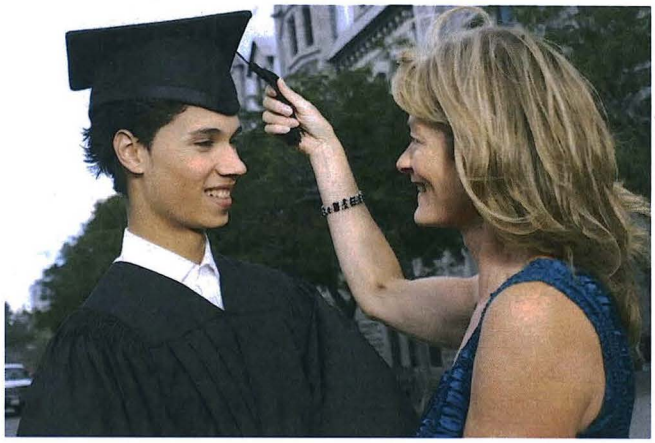
On a related note, although it used to be possible for colleges to determine if a student received accommodations based on the standardized test score report, that is no longer the case. Therefore, unless it is specifically disclosed by the student, parent, or a reference offered by the student, there is no way for colleges to know.



What should a student with a learning disability look for in college?

Consider the student's individual needs and spend some time researching colleges before deciding on a college. In addition to standard considerations when looking at colleges (for example, in-state or out, scholarships and tuition), also consider the following:

- **Level of Support:** Does the student need comprehensive LD services or minimal accommodations? Virtually all schools offer some support, but the more comprehensive the services that are being sought, the shorter the list of available schools.
- **Finances:** Many schools charge fees for LD services in addition to tuition. Be sure to check up front so there are no last minute surprises or disappointments.
- **Extracurricular:** Are extracurricular activities, such as playing sports or joining a sorority, important to the student? For many students, these activities are a vital part of their college experience that provide needed structure, accountability, and social support.
- **Class Size:** Many students with LD do better in smaller class sizes where the professors know their names, are available to talk after class, and answer e-mails.
- **Professors:** Who does the teaching? Large schools often staff classes with minimally-experienced graduate students who do not know the content area as well or do not have a wealth of experience to draw upon for teaching students with LD.



- **Housing Options:** Does the student need to live alone due to cognitive, emotional, or social challenges? Many schools do not have this option for freshmen and may require a request for a housing accommodation.
- **Medical Resources:** Is there access to medical care so the student can continue to receive prescription refills or other medical attention as necessary? Students often find it challenging to secure prescriptions, particularly for stimulant medication, in college for a variety of reasons (for example, they don't have a car to get to the pharmacy, or they don't have a local physician to write prescriptions), and, therefore, they stop taking the medication at the most academically demanding time of their lives. This problem can be avoided with some planning and forethought.
- **Transportation:** Will your student have access to a car? Students with LD often need to leave campus to pick up medications, attend doctor appointments, or join tutoring sessions. Many colleges do not allow first year students to have cars, but exceptions may be made in certain cases.
- **Faculty Attitude:** Are faculty members accepting of students with LD? The faculty's willingness to accommodate students with LD is critical to the student's success.
- **Course Load:** Can a student with LD take fewer hours per term and still be considered full time? This is an important consideration for health insurance and financial aid, which often require full-time enrollment for benefits.
- **Course Training:** Have the counselors or learning specialists who work with students with LD received special training?
- **Graduation Rate:** Are students with LD allowed more time to complete graduation requirements? If they are not taking the same number of courses or credits per term as their peers, students with LD may take longer to graduate.
- **Parent Support:** Is there someone parents can contact if they have concerns during the academic year? College students are considered adults, so many schools have policies in place that prevent parents from accessing information about their children.

Attending college is often seen as a rite of passage for both students and parents. When searching for the right college or university, it is important that you and your child take into account the campus environment, class size, and the type of support services that are offered. One of the most important factors for success in college is identifying the best fit. With advanced planning and forethought, a capable student with LD can have a positive college experience and a bright future.

7

Recommended Readings and Resources on Dyslexia

Recommended Reading for Children and Teens

The following list of publications has been compiled to provide resources for children and teens with learning differences. If you are a parent, teacher, therapist, or anyone else who provides guidance and support to young people with learning differences, this list can help you find resources at the appropriate level.

Pre-School and Early Elementary

Moore-Mallinos, J., Roca, N. (2007). *It's called dyslexia.* Hauppauge, NY: Barron's Educational Series.

Elementary

Dwyer, K.M. (1991). *What do you mean I have a learning disability?* New York, NY: Walker & Co.

Esham, B., Gordon, M., & Gordon, C. (2008). *If you're so smart, how come you can't spell Mississippi?* Perry Hall, MD: Mainstream Connections.

Esham, B., Gordon, M., & Gordon, C. (2008). *Last to finish: A story about the smartest boy in math class.* Perry Hall, MD: Mainstream Connections.

Esham, B., Gordon, M., & Gordon, C. (2008). *Mrs. Gorski, I think I have the wiggle fidgets.* Perry Hall, MD: Mainstream Connections.

Esham, B., Gordon, M., & Gordon, C. (2008). *Stacey Coolidge's fancy-smancy cursive handwriting.* Perry Hall, MD: Mainstream Connections.

Polacco, P. (1998). Thank you, Mr. Falker. New York: NY: Putnam Publishing Group.

Elementary to Young Teens

Betancourt, J. (1993). *My name is Brain/Brian.* New York: NY: Scholastic.

Denison, K. (1996). *I wish I could fly like a bird.* Schenectady, NY: Wildwood Creative Enterprises.

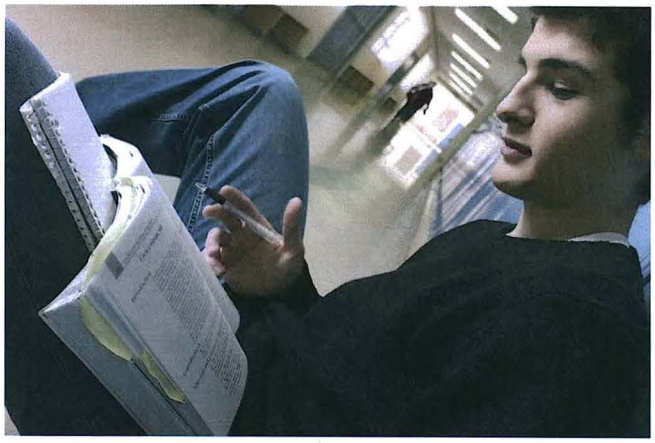
Gehret, J., & DePauw, S.A. (1990). *The don't-give-up kid and learning disabilities.* Fairport, NY: Verbal Images Press.

Levine, M.D. (1993). *All kinds of minds: A young student's book about learning abilities and disorders.* Cambridge, MA: Educators Publishing Service.

Levine, M.D. (2001). *Jarvis Clutch- social spy.* Cambridge, MA: Educators Publishing Service.

Richards, R.G., & Richards, E.I. (2000). *Eli: The boy who hated to write: Understanding dysgraphia.* Riverside, CA: RET Center Press.

Stern, J.M., & Ben-Ami, U. (1996). *Many ways to learn: Young people's guide to learning disabilities.* New York, NY: Magination Press. [Audiotape also available.]



Young Teens

Barrie, B. (1994). *Adam Zigzag.* New York, NY: Delacorte Press.

Blue, R. (1979). *Me and Einstein: Breaking through the reading barrier.* New York, NY: Human Sciences Press.

Fisher, G.L., & Cummings, R. (1991). *The school survival guide for kids with LD.* Minneapolis, MN: Free Spirit Publishing.

Griffith, J. (1998). *How dyslexic Benny became a star.* Dallas, TX: Yorktown Press.

Janover, C. (1998). *Josh: A boy with dyslexia.* Burlington, VT: Waterfront Books.

Teens

Barrett, S.L. (1992). *It's all in your head: A guide to understanding your brain and boosting your brain power.* Minneapolis, MN: Free Spirit Publishing.

Bauer, J.J. (1992). *The runaway learning machine: Growing up dyslexic.* Minneapolis, MN: Educational Media Corporation.

Bauer, J.J. (1999). *Too much time on Sycamore Street: A self-help resource for adolescents and adults with learning disabilities.* Minneapolis, MN: Educational Media Corporation.

Dunn, K.B., & Dunn, A.B. (1993). *Trouble with school: A family story about learning disabilities.* Rockville, MD: Woodbine House.

Fisher, G.L., & Cummings, R. (1990). *The survival guide for kids with LD.* Minneapolis, MN: Free Spirit Publishing.

Hallowell, E.M. (2004). *A walk in the rain with a brain.* New York, NY: Harper Collins.

Hayes, M.L. (1994). *The tuned in, turned on book about learning problems.* Novato, CA: Academic Therapy Publications.

Hipp, E. (2008). *Fighting invisible tigers: Stress management for teens* (3rd ed.). Minneapolis, MN: Free Spirit Publishing.

Janover, C. (1995). *The worst speller in jr. high.* Minneapolis, MN: Free Spirit Publishing.

Levine, M.D. (1990). *Keeping a head in school: A student's book about learning abilities and learning disorders.* Cambridge, MA: Educators Publishing Service.

Packer, A. (1992). *Bringing up parents: The teenager's handbook.* Minneapolis, MN: Free Spirit Publishing.

Smith, J. (2009). *Dyslexia wonders: Understanding the daily life of a dyslexic from a child's point of view.* Hampton, VA: Morgan James Publishing.

Recommended Reading for Parents

Eide, B. & Eide, F. (2011). *The dyslexic advantage: Unlocking the hidden potential of the dyslexic brain* (1st ed.). New York: Hudson Street Press.

Fitzhugh, L. (2014). *What is the appropriate reading instruction for a child with dyslexia?* International Dyslexia Association

Hall, S. L., & Moats, L. C. (2002). *Parenting a struggling reader.* New York: Broadway Books.

Kurnoff, S. (2001). *The human side of dyslexia: 142 interviews with real people telling real stories.* London: Universal.

Moats, L. C., & Dakin, K. (2008). *Basic facts about dyslexia and other reading problems.* Baltimore: The International Dyslexia Association.

Ott, P. (1997). *How to detect and manage dyslexia: A reference and resource manual.* New York: Heinemann.

Rawson, M. (1988). *The many faces of dyslexia.* Baltimore, MD: The International Dyslexia Association.

Reid, G. (2011). *Dyslexia: A complete guide for parents and those who help them* (2nd ed.). New York: Wiley.

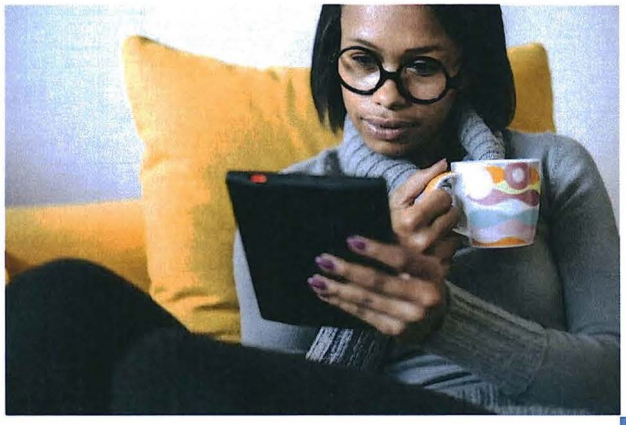
Shaywitz, S. (2003). *Overcoming dyslexia: A new guide and complete science-based program for reading problems at any level.* New York: Knopf.

Siegel, L. M. (2007). *The complete IEP guide: How to advocate for your special ed child* (5th ed.). Berkley, CA: Nolo.

Siegel, L. M. (2013). *Understanding dyslexia and other learning disabilities.* Vancuver, BC: Pacific Educational Press.

Smith, J. (2009). *Dyslexia wonders: Understanding the daily life of a dyslexic from a child's point of view.* New York: Morgan James Publishing.

Tessler, L. G. (2008). *One word at a time: A road map for navigating through dyslexia and other learning disabilities. Amazon.*



Tridas, E. (2008). *From ABC to ADHD.* Baltimore: The International Dyslexia Association.

Wright, P. W. D., & Wright, P. D. *Wrightslaw: From emotions to advocacy, the special education survival guide* (2nd ed.). Hartfield, VA: Harbor House Law Press, Inc.

8

Glossary of Terms

Like any professional field, education has its own unique terminology. The following list provides some of the most common terms. These terms may vary across geographical areas and even within states. In one part of the country an instructor might be referred to as a therapist and in another a specialized tutor. Sometimes different words are used to refer to the same things, such as academic language therapy, educational therapy, and multisensory structured language instruction from a qualified tutor.

Academic Language
Academic language denotes that services offered to clients are educational and emphasize the teaching of reading, spelling, handwriting, and written expression. *Therapy* indicates that those services are intensive and therapeutic rather than tutorial.

Academic Language Therapist
Academic language therapists (or academic therapists) have learned specific instructional strategies for teaching students with dyslexia- a language-based learning disability that affects some combination of oral language skills (speaking and listening) and written language skills (reading, spelling, handwriting, and written expression).

Academic Language Therapy
Teaching begins with the basics and rebuilds the learning continuum step-by-step. Academic language therapy starts from ground zero so that no gaps remain in the student's understanding of language structure. Students learn systematic strategies for decoding (word identification), encoding (spelling), and letter formation. Students' successes and challenges during one lesson inform the planning of subsequent lessons. Academic language therapy is cumulative, systematic, structured instruction that is written and planned for a particular student, or group of students, and is delivered by an educator with comprehensive training. Following the advice of Margaret Rawson, a pioneer in the field of dyslexia education, academic language therapists guide their students' progress "*as fast as they can but as slow as they must.*"

Board Certified Educational Therapist (BCET)
Board Certified ET membership is open to educational therapists who have a master's degree, have been ET/ Professional members in good standing for at least one year, and have met additional requirements as specified by the AET Certified Board.

Certified Academic Language Therapist (CALT)
Academic Language Therapy Association (ALTA) certifies academic language therapists. Certified Academic Language Therapists (CALT) have completed accredited courses of study that provide extensive training and practicum experiences in multisensory structured language teaching. Academic Language Therapists have knowledge of the logic and structure of English language systems: phonology, phonics, orthography, morphology-etymology, semantics, and syntax. They know how to deliver structured language instruction using simultaneous multisensory teaching strategies.

Decoding
This refers to the ability to understand and apply letter and sound knowledge and read words and sentences correctly. Decoding may also be called *word attack*.

Educational Therapist
An educational therapist provides individualized intervention, formal and informal assessment of academic skills, and case management for clients with a wide range of learning disabilities and learning issues.

An educational therapist has training in multiple types of learning difficulties, with additional training in assessment and intervention strategies that address the social-emotional aspects that have an impact on learning. An educational therapist sets goals and develops an intervention plan that addresses not only academic difficulties, but also social-emotional aspects of life-long learning through an eclectic combination of intervention strategies.

Educational Therapy
Educational therapy considers the impact of school, family, and community in the client's learning, fosters communication with all significant members of the client's environment, and attends socio-emotional goals as well as academic goals. With recognition that emotional, behavioral, and learning problems are often linked, and educational therapist works with all the significant people concerned with the student's learning; focus is not only on remediation but also on building underlying learning skills and helping clients become more self aware, self reliant and efficient learners.

Educational Therapy/Professional (ET/P)
Professional membership in the Association of Educational Therapists (AET) is open to educational therapists who have a master's degree (or who have met the requirements of graduate level and/or upper division level courses), are engaged in educational therapy in private practice, public or private schools, private clinics, hospitals, or public agencies, and who have met the direct service delivery minimum of 1,500 hours and have completed their Board Certified Educational Therapist (BCET) Supervised Hours.

RAN: Rapid Automatized Naming

The ability to quickly say aloud the names of objects, pictures, colors, or symbols such as, letters or numbers in a sequence. This skill is linked to learning to read fluently.

Tutor
The term *tutor* is used in both general and specific ways to refer to volunteers and professionals with a broad range of skills and qualifications, so it is very important to ask and be clear about how the term is used with regard to the instruction your child receives. Tutors who lack the training described within IDA's *Knowledge and Practice Standards for Teachers of Reading* will lack the depth necessary to understand and address the needs of students with specific language-based learning disabilities, such as dyslexia. Some examples of the services you can expect from different types of tutors are outlined below. Most of us are familiar with the general use of the term *tutor*- an instructor hired to work with individual students or small groups. These tutors typically use traditional teaching methods to help with completing homework or projects in specific subject or curriculum areas that are causing them problems. Tutors may also be skilled at teaching time management, task completion, and study skills. These tutors provide important instructional assistance to students in helping them reach their academic goals; however, they may not be subject to standards or professional qualifications for a tutor and their background *may not* include comprehensive training in language learning disabilities, assessment, case management, and the structure of language.

Qualified multisensory structured language professionals sometimes refer to themselves as instructors or tutors. These individuals have competed extensive accredited coursework and practicum experiences in multisensory structured language teaching. They have in-depth knowledge of the structure of English language and deliver language instruction using simultaneous multisensory teaching strategies. They are highly trained instructors who can deliver effective instruction to individuals with specific language-based learning disabilities, such as dyslexia.

Tutoring
Tutoring may help students meet the demands of grade level expectations in a variety of required subjects, including basic study skills.

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Opinion

iMedPub Journals
http://www.imedpub.com

Journal of Childhood & Developmental Disorders
ISSN 2472-1786

2016
Vol. 2 No. 3: 26

DOI: 10.4172/2472-1786.100034

The Dyslexia Dilemma: A History of Ignorance, Complacency and Resistance in Colleges of Education

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Citation: Hurford DP, Hurford JD, Head KL, et al. The Dyslexia Dilemma: A History of Ignorance, Complacency and Resistance in Colleges of Education. J Child Dev Disord. 2016, 2:3.

Abstract

Dyslexia is the most common and widely studied learning disability affecting nearly 20% of the children in the United States. Although the Science of Reading provides considerable information with regard to the nature of dyslexia, its evaluation and remediation, there is a history of ignorance, complacency and resistance in colleges of education with regard to disseminating this critical information to pre-service teachers. Information concerning weaknesses in the training of doctoral-level faculty which trickles down to graduate students in education and pre-services teachers is discussed along with potential solutions. Children with dyslexia and reading difficulties are waiting to be taught to read and the knowledge and skills necessary to do so exist. It is essential that the Science of Reading become part of the vocabulary, knowledge base and training within colleges of education.

Keywords: Dyslexia; Education; Teacher Training; Reading Difficulties

Received: May 17, 2016; **Accepted:** August 10, 2016; **Published:** August 16, 2016

Introduction

Reading acquisition is one of the most complicated and important skills in which humans engage. In our culture, the social and economic success that a person enjoys is very much related to his or her reading skills. There is hardly a career or job that does not depend on some level of reading proficiency. This was not always the case. An examination of the past 150 years indicates that the number of skilled labor jobs [1-3] and the number of family-owned farms has declined [4], and the need for a high school diploma has increased [5,6]. In the past, individuals who had difficulties learning to read could find gainful employment that did not require a high school education or the ability to read. This is simply not the case in contemporary society. As a result, all children need to learn how to read and they need to have adequate reading skills as adults, beyond simply reading for pleasure. Poor reading skills can act as a barrier for social engagement and influence [7]. As a result, the development and maintaining of adequate reading skills are of paramount importance.

Unfortunately, for the nearly 20% of individuals in the United States who have dyslexia, reading acquisition is painfully difficult [8,9]. Dyslexia is the most widely studied and common learning difference. In addition to the various academic problems associated with dyslexia and poor reading skills, individuals with dyslexia also suffer poor self-esteem [10], can become depressed, suicidal, and experience post-traumatic stress [11,12] are more likely to abuse substances, be victims of parental physical abuse [13], drop out of school [14], be adjudicated as juveniles [15] and later as adults [14] and are more likely to live in poverty [14]. Dyslexia and reading difficulties are not only a very serious academic issue, but are also very serious social issues. Fortunately, reading scientists have discovered the nature of the fundamental systems involved in reading failure. The term the Science of Reading refers to the corpus of knowledge that includes what science has determined to be relevant to reading, reading acquisition, assessment of poor reading and the interventions available for poor readers. The Science of Reading involves precisely what science has discovered to be relevant not only to reading, its subskills and reading acquisition, but how to

modify experiences such that struggling readers and individuals with dyslexia can become competent readers. This knowledge includes phonology, phonics, orthography, fluency, vocabulary, comprehension, neuro-processing as it relates to reading and its genetic basis, visual, perceptual and memorial processing, the various writing systems, the alphabetic principle, letter-sound correspondences, among other areas.

Insuring that pre-service teachers are competent in applying their knowledge of the Science of Reading is critical in reducing reading failure and poor performance in reading [16]. The scientific evidence contained within the Science of Reading has guided the creation of interventions that are successful in assisting individuals with dyslexia and reading difficulties to become competent readers. Given the potentially disastrous negative effects of dyslexia and the likely loss of contribution that an individual with dyslexia can make toward society due to the barriers inherent in the current educational system; utilizing strategies to assist individuals with dyslexia to become competent readers, and thus, able to make a contribution to themselves, their families, communities and society is critically important.

Dyslexia is characterized by difficulties with accurate and/or fluent words recognition. These difficulties typically result from a deficit in the phonological component of language that is often unexpected in relation to other cognitive abilities and the provision of effective classroom instruction. Secondary consequences may include problems in reading comprehension and reduced reading experience that can impede growth of vocabulary and background knowledge" (International Dyslexia Association). Specifically, although the exact mechanisms are not completely elucidated, dyslexia involves a great difficulty in manipulating the sounds of language, difficulties in assigning the sounds associated with their representative letters and decoding letters into the sounds that they represent. These difficulties pose barriers to fluent reading which then causes comprehension to be lacking or absent, spelling and writing difficulties, and a host of other related problems.

Speech Acquisition and Learning to Read

The ability to learn to speak is natural and relatively effortless for nearly all infants and toddlers. For most infants, simply exposing them to a language guarantees that they will learn the language. Regardless of nationality, infants are natural language learners and are generally born with the ability to utter all of the sounds that humans are capable of producing [17-21]. After some time in a particular language environment, the infant will stop producing some sounds in favor of those that he or she is consistently hearing. The infants and young toddler's vocabulary also increases in leaps and bounds. For the most part, this process is seemingly so automatic and effortless that Noam Chomsky theorized that infants are born with a Language Acquisition Device [22,23]. The LAD is a theoretic neurological device whose primary purpose is to help the individual to acquire language with relative ease. The only requirement is that children must be exposed to language on a frequent and consistent basis. Their neurological systems recognize the patterns and conventions of the language and the child appears to "learn" the language rather effortlessly. Although individuals may be born with LADs that help them to acquire spoken language skills, it seems to have a limited life. The LAD seems to be present at birth and remains intact until the individual acquires his or her spoken language. After early childhood, the ability to easily and effortlessly acquire languages is diminished. This reality is experienced by anyone who attempts to learn a second language after middle childhood. At this point, learning an additional language becomes quite effortful.

Learning to read, on the other hand, is not a natural process and is a task in which children must exert tremendous cognitive effort [24,25]. Providing young children exposure to text does not result in spontaneous reading. Children must map the sounds for which they are already familiar to the letters used to represent them. They must learn how to use the knowledge of these relationships to decode words, synthesize individual sounds into words, and then recognize the word as a word that they have in their vocabulary. Lastly, and most importantly, the child must be able to comprehend the written material. Comprehension is the goal of the reading process, but is typically dependent on all of the preceding skills any of which could cause difficulties for comprehending text. As already noted above, many of our nation's children have grave difficulty learning to read. Learning to read is certainly an effortful act that can be delayed if children do not have the prerequisite skills to become adequate readers [26,27].

Speech evolved as a mechanism for humans to communicate and is a neurologically expected event [28]. An examination of an infant's development includes the progress made in relation to learning to speak. Reading, on the other hand, is an invention of humans that took advantage of neurological systems that evolved for purposes other than reading [29]. The spoken word is transcribed into symbols that represent the various aspects of the language. An individual must learn the association between those symbols and their sounds and how to apply that knowledge to the process of reading. The reading process is not "pre-wired" into the brain as has been argued for speech development. As an example, at the time of birth, infants process speech sounds in a categorical manner without prior experience. Acoustically, speech is a continuous phenomenon. However, we hear each sound or phoneme in words categorically. That is, we can distinctly hear the specific sounds in a word. However, when viewing speech signals acoustically, it is difficult to determine where the beginning and end of a sound or word is. In **Figure 1** the sentence "I like to read." is presented. One of the reasons that it is difficult to determine the demarcation point for sounds and words is that the sounds overlap each other even though we hear the sounds categorically.

Human brains are able to make sense of acoustic information without actually learning to do so. They are uniquely prepared for their language environments and are ready to begin the process of speech acquisition. This is simply not the case for reading. To learn to read effectively, one has to exert considerable effort and energy and to come to understand that the written language is a code that represents the spoken language.

Writing Systems

There are many different ways to communicate meaning through

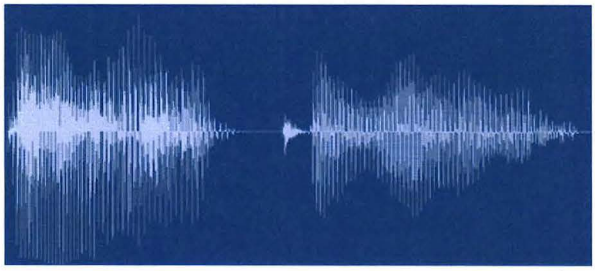

Figure 1 Illustration of the acoustic view of the sentence "I like to read."

symbols. Logographic systems do so by representing words, phrases or concepts to symbols. The Chinese logographic system represents syllables. As an example, two Chinese logographs are used to represent the word "reading;" Read. To be fully literate in Jiantizi, an individual would need to know approximately 3,000-4,000 logographs. To learn this large number of logographs is extremely time-consuming and challenging. There have been unsuccessful attempts to replace the logographic system with an alphabetic system as the alphabetic system is much more economical when examining the mnemonic effort required to learn logographs compared to alphabets [30].

The English Writing System uses symbols as well, but rather than representing morphemes or meaning, letters are used to represent the sounds or phonemes of the English language. The great advantage of doing so concerns the enormous number of words that a reader of the English Writing System can read and, as a result, has access to from a very early time in the individual's reading development. Additionally, when new words are encountered, the proficient reader generally has the skills to read the word successfully. Essentially, once the individual comprehends that sounds are represented by letters, the most probable combinations of particular letters, and the many variations in which specific sounds can be represented, the number of words that this individual could read is practically limitless. However, the writing system should represent the spoken language in terms of fit as well. Some languages are more easily represented by logographs, syllables or alphabets.

A transparent writing system is a writing system in which each sound of the language is represented by one and only one symbol. In addition, each symbol represents one and only one sound. There is a direct relationship between the sounds and their symbols. Examples of transparent writing systems include Greek, German, Finnish, Serbian, and Turkish.

Practice translating or decoding the symbols into their sounds helps the individual become more efficient. Once an individual has repeatedly practiced a skill it becomes increasingly more proficient and can become nearly automatic. Cognitive scientists define an automatic process as a process that requires little or no cognitive energy to perform [31,32]. Each individual has cognitive skills and abilities and a finite amount of cognitive energy. When a task is very difficult or effortful most or all of that cognitive energy is required to perform that task. Practice begets efficiency and efficiency requires less cognitive energy.

When individuals have been reading for many years, it is likely that the initial reading processes will become automatic. That is, the reader may require little cognitive energy to perform decoding and synthesizing skills. For the skilled reader, what is being read seemingly and instantaneously transfers from text to meaning. The beginning reader very carefully decodes each letter into its respective sound and then synthesizes those sounds into words until he or she has read every word in the sentence. This process is deliberate and time consuming and requires an enormous amount of cognitive energy. However, as individuals practice these skills, they become more efficient, and as a result, require less cognitive energy. As the analysis (decoding) and synthesis (blending) skills become more automatic, the savings in the use of cognitive energy can be applied to other cognitive tasks such as comprehension [33].

Neurologically, individuals with dyslexia learning to read a transparent writing system are just like children who experience reading failure with the opaque English writing system, but since the transparent writing system is less burdensome to decode, their experience with reading failure results in very slow reading rather than being bogged down in the quagmire as is the case for children learning to read an opaque writing system. Additionally, students who are learning to read in languages that have transparent writing systems begin formal reading acquisition training later and end it sooner than those children who are learning to read in writing systems that are not transparent.

An opaque writing system does not have a one-to-one system for representing sounds like the transparent writing system. English employs one of the most opaque writing systems, has been influenced by many languages and continues to evolve each day. It is a dynamic and fluid language that embraces change. The English writing system has allowed each of the languages that have influenced English, such as Anglo-Saxon, French, Latin, Greek, and Danish, to retain their writing systems. Some of those languages are also opaque. As a result, learning to read English is an extraordinarily difficult enterprise. J. R. Firth, in 1937, stated, "English spelling is so preposterously unsystematic that some sort of reform is undoubtedly necessary in the interest of the whole world." Mastering the English writing system involves great time and effort on the part of the learner because of the borrowing and using of other writing systems with their unique spelling protocols. As an example, there are several alternative spellings for the "ē" sound (e.g., "e," "ee," "ea," "y," "e-consonant-e," "ie," "ei," "ey," "i," etc.) just as there are alternative spellings for several sounds. Some sounds are represented by digraphs (e.g., "ow," "ou," "sh," "th-voiced," "th-unvoiced," etc.) and vowels are modified if they are followed by the letter "r" (r-controlled vowels, e.g., "ar," "ir," "er," "ur," etc.). To complicate the system further, there are different spellings of words based on context (e.g., "to," "too," and "two;" "threw" and "through;" "tow" and "toe," etc.). Children begin the process of learning to read an opaque writing system earlier than their transparent-writing-system peers and take much longer to learn it.

It is necessary for beginning readers to acquire the alphabet principle [34-36]. That is, to understand that sounds are represented by letters. Reading an alphabetic writing system involves translating the written code into its phonemes and synthesizing those phonemes into words. Unfortunately, individuals with dyslexia have grave difficulty decoding the written

text into sounds and then synthesize them into words and the basis for this difficulty appears to be related to poor phonological processing skills [37,38]. Improvement in phonological processing requires explicit instruction and intervention in children with dyslexia [39,40]. Waiting to determine if the child will spontaneously acquire these skills is problematic [41]. A child with dyslexia must have explicit training to develop the skills necessary to learn to read. It has been known for some time that children who are not given explicit training to resolve their phonological processing deficiencies become adults who experience illiteracy [42].

The History of Ignorance, Complacency and Resistance

The science is relatively clear on issues related to reading acquisition, how to teach reading, the causes of dyslexia and reading failure and how to identify and provide remediation strategies for children with dyslexia and reading difficulties [43-45]. The history within colleges of education has been a resistance to the Science of Reading, widespread ignorance and complacency. In each case, colleges of education faculty have ignored the scientific knowledge that informs reading acquisition and the identification and intervention strategies for struggling readers. As a result, the pre-service teachers who are being educated at these institutions fail to receive the necessary training that would allow them to be effective in providing remediation to students with dyslexia [46]. "For the greatest enemy of truth is very often not the lie—deliberate, contrived and dishonest—but the myth—persistent, persuasive, and unrealistic. Too often we hold fast to the clichés of our forebears. We subject all facts to a prefabricated set of interpretations. We enjoy the comfort of opinion without the discomfort of thought" [47].

The results of this ignorance, resistance and complacency can be seen at many levels. The Nation's Report Card indicated that 33% of fourth graders were reading at a level below Basic and 58% are reading at a level below Proficient. Reading at the Basic level indicates partial mastery of the skills necessary for proficient work at a particular grade level. Reading at the Proficient level denotes appropriate academic performance in which students have demonstrated their competency to read challenging material [48]. These percentages have not changed appreciably since 1992 when the percentage of students reading below Basic and Proficient were 38% and 55%, respectively [48]. Although considerable concern and effort have been placed on issues related to students who are performing poorly in reading, the data suggest that not much progress has been made in student performance even though the Science of Reading has established how reading acquisition occurs and how to remediate the deficient skills and subskills related to reading.

The concerns regarding reading are certainly not new. Three decades ago, the National Commission on Excellence in Education provided ample evidence that many of our nation's children experienced academic difficulties that resulted in poor reading and mathematics proficiency. These difficulties were also found to persist into adulthood [49]. Since that time several key pieces of legislation were enacted that attempted to rectify these issues (Improving America's Schools Act, 1994; Goals 2000: Educate America Act, 1994; No Child Left Behind Act, 2002). Although these efforts provided illumination of the difficulty, and in the case of the No Child Left Behind Act enormous accountability requirements for school systems, academic performance has not changed and a nearly equal percentage of students are continuing to experience reading failure. Educational critics have argued that poor classroom instruction, particularly for very low-performing students, is responsible [50]. One could argue that accountability aspects of these pieces of legislation, particularly No Child Left Behind, resulted in poor performance on reading tests. The requirement that testing be used to determine the academic progress of students necessarily reduced the time that teachers could spend teaching basic skills in the classroom due to increased need to teach students how to pass high-stakes testing. This argument seems unlikely for several reasons, most notably that poor reading performance existed prior to the enactment of legislation and that the raison d'etre for the legislation was specifically to increase reading skills. As discussed above, a very large percentage of teachers lack the basic knowledge that is required to teach reading acquisition [51,52]. This unhappy fact would seem to play a very large role in the reason that students are performing so poorly on high-stakes reading tests. In fact, if teachers were successful at "teaching to the test," performance would have increased on reading tests. The fact of the matter is that teachers do not receive training in the Science of Reading which leads to an inability to provide appropriate instruction in the classroom.

There is considerable scientific knowledge concerning reading acquisition and the strategies that are the most effective in teaching children to read [53-56]. Classroom instruction that teaches these skills related to the Science of Reading is more effective than those that do not. Unfortunately, it appears that these skills and the components of the Science of Reading are often not directly taught to many pre-service teachers [57-59].

Approximately 53% of pre-service and 60% of in-service elementary teachers who will be most responsible for assisting students with reading acquisition, were unable to correctly answer half of the questions regarding knowledge of language structure [60]. Only 20% of 722 teachers could segment words into speech sounds; only 30% correctly identified the number of phonemes in half the items; and only 60% positively identified the irregular words in a list of 26 words. During debriefing, teachers reported that they had not received formal instruction regarding the complex structure of phonological processing during their academic training [52].

Despite being experienced and well-educated, teacher participants generally demonstrated low levels of the explicit, specialized knowledge necessary to effectively provide reading instruction to students [61]. Pre-service teachers were also found to overestimate their knowledge [52].

Teacher training programs generally fail to provide adequate instruction and acceptable resources regarding how to teach students to read. Instead, teachers must rely on their own skills and on other resources to learn how to teach reading. Most colleges of education encourage pre-service teachers to

"develop their own personal philosophy of reading" [58] rather than teach pre-service teachers the mechanics of the Science of Reading. Such misguided encouragement results in a considerable variety of positions regarding teaching reading, most of which are inconsistent with the Science of Reading, and thus with reality.

Not only are teachers not receiving adequate preparation, they also are not provided with appropriate resources during their training. In a 2006 examination by the National Council on Teacher Quality (NCTQ) of college-level reading courses, the authors considered a textbook to be an acceptable example of a core resource for the course if it thoroughly presented the five components of reading instruction which were identified by the National Reading Panel as phonemic awareness, phonics, fluency, vocabulary and comprehension [59]. The four textbooks found to be acceptable in a survey of 227 were used in less than five percent of the courses examined. Often, inaccurate information was presented in widely used textbooks [62].

It has been documented that teachers are not providing beginning readers with consistent and adequate reading instruction. Reading failure rates have not changed appreciably in several decades even though the scientific literature regarding reading, its subskills and proper teaching techniques have been repeatedly substantiated. It is clear that pre-service teachers are not receiving proper instruction regarding the Science of Reading. Pre-service teachers, experienced teachers, and university instructors all perform poorly on measures of constructs relating to reading acquisition and literacy. Thus, the lack of the knowledge related to the Science of Reading could be the reason for the resistance in teaching these concepts to future generations of teachers. An alarmingly small number of teacher education programs provide coursework that presents the appropriate knowledge base of the Science of Reading to its students, hence the impetus of Greenberg, McKee and Walsh's [58] work to link evaluative scores to colleges of education so that individuals who have a desire to become teachers can make informed decisions regarding matriculation.

In their eight-year study to develop and implement a method to examine teacher education programs, only 22% of the 594 teacher certification programs involved in the study received scores of three or higher on a four-point rating scale [58]. Additionally, 78% of the elementary education programs received scores of 0 ("program coursework does not adequately address strategies for struggling readers," p: 41) for Standard 4 (Struggling Readers) which is the standard most germane to this discussion.

The lack of knowledge regarding the Science of Reading witnessed in pre-service teachers, in-service teachers and their professors is paramount to complacency, ignorance and resistance and falls fully on colleges of education who willfully and knowingly resist disseminating the Science of Reading to their students. Faculty in colleges of education often have insufficient training in science and research methods such that they are not able to read the research available that would inform them of the content of the Science of Reading. As an example, the weaker the training in research the more likely that an institution offers an Ed.D. rather than a Ph.D. in education [63]. Further, Townsend [64] expressed that many Ed.D. programs lack value and are "seen as a watered down version of the Ph.D. in Education and seemingly fail to provide practitioners with the knowledge, skills, and behaviors for effective leadership in educational settings" [64]. Faculty in colleges of education often do not possess the skills necessary to read, understand and critically evaluate the scientific literature concerning the cognitive, linguistic, neurological, etc. components of reading. Boote and Beile [65] discovered that literature reviews for dissertations en route to the Ed.D. were generally weak, lacked substance and failed to demonstrate that the candidate had a firm grasp of his or her field. Without training in research which includes first and foremost an understanding of the literature in one's field, individuals cannot be consumers or contributors to this literature. When faculty lack training in research and science, they are susceptible to strategies that are not aligned with science and therefore not appropriate. As a result, parent-led-grass-roots organizations are leading the charge to transform colleges of education and to require that they teach the Science of Reading so that identification and intervention techniques can be used to teach children with dyslexia.

An approach that has permeated the education of pre-service teachers and is antithetical to the Science of Reading refers to an approach referred to as whole language (WL). Goodman [66,67], who developed the WL approach, conceptualized learning to read in a similar fashion as language acquisition described by Chomsky. Goodman argued that learning to read is natural and should mirror the development of language acquisition [68]. It was argued that exposure to print should result in literacy in the same way that exposure to a language results in language acquisition. Unfortunately, reading development does not occur as a function of mere exposure to print as language does; nor is reading acquisition a function of a "psycholinguistic guessing game." Smith [69,70] suggested that focusing on phonemes deterred children from learning to read and that "children learn to read only by reading" [70]. Learning to read requires explicit and systematic instruction, language acquisition does not. An alphabetically-based writing system, such as that which is used in English, represents the sounds of the language with letters. The English Writing System, like all alphabetic writing systems, is a code. Access to phonology occurs as a function of deciphering the symbols into their respective phonemes. Once an initial understanding of the relationship between sounds and their symbols has been developed, decoding and reading acquisition training commences. Its reciprocal process, encoding, is used to represent the spoken language with words conveyed through letters so that thoughts can be made permanent. Complete comprehension of the code requires both decoding (reading) and encoding (writing). With intense and sustained practice, individuals who do not have dyslexia become able to develop a high level of skill such that these processes become nearly automatic. Individuals with dyslexia who are learning to read the English Writing System struggle tremendously. Learning to read an alphabetically-based writing system specifically and emphatically requires attending to and learning about the smallest units of language.

Sophisticated eye movement technologies examining skilled adult readers have indicated as many as 15 - 25% of words are

not initially fixated during reading [71]; thus words that are short, high-frequency, predictable and are acquired early in reading development are likely to be skipped and, therefore, not fixated. In addition, compared to adults, children are more likely to have more fixations (fixating on more words than adults), have fixations of longer duration, have shorter saccades, have more refixations (fixating on a word that was previously fixated), and make more regressions [72]. Eye movement studies only included children who were capable of reading simple sentences without the need for decoding [73]. For children beginning reading acquisition, attention to each letter in a word is necessary. The unit of analysis in terms of reading is the letter. It is the letter that holds the key to deciphering words into their sounds such that reading can take place.

As an example of the difficulties associated with utilizing a system that does not employ the Science of Reading, California in 1987 embraced the conceptual framework of WL. The school systems used WL textbooks and the phonics approach was largely deemphasized if not eliminated. By 1994, the fourth-grade reading scores from California were tied with Louisiana's and Guam's as the worst of the 39 states and territories that participated in the national standardized reading test (National Assessment of Educational Progress). As a result, legislative hearings occurred and a task force was commissioned. Granted, there were likely other ancillary reasons for the poor reading skills observed in 1994, but their combined reports determined that the WL approach was an inappropriate reading acquisition strategy.

Soon thereafter, the Australian Government in 2005 recommended systematic instruction of synthetic phonics and argued that WL, "on its own, is not in the best interest of children, particularly those experiencing reading difficulties." [74] and also reported that "direct systematic instruction in phonics during the early years of schooling is an essential foundation for teaching children to read" (p: 11).

The WL framework has been the persistent persuasive myth of our time. It sounds so organic and liberating. Simply expose children to good literature and to common words consistently and allow them to grow naturally into strong readers at their own pace and they will become competent readers. No need to first instruct children how the writing system actually works, that words need to be decoded before they can be read. Simply guess at the pronunciation of the word. Obviously, even to the individual who has no background in reading acquisition, this sounds ludicrous and it is. It is crucial that children engaged in reading acquisition have access to the meaning and purpose of the English writing system and that it represents a code. Reading acquisition is first and foremost a process of learning how to decipher printed words into their respective sounds and synthesizing those sounds once decoded to read words. The English Writing System was based on an alphabet, which acts as a Rosetta Stone so that individuals can transcribe sounds into symbols and directing the symbol representation of the sounds. It is crucial that children learning to read are taught the relationship between sounds and symbols, decoding and synthesizing.

Many children are able to comprehend the nature of the code and are able to appreciate that the English writing system is indeed a code to be used to decipher text. Once this notion has been comprehended, more advanced strategies can be deployed. Unfortunately, the child with dyslexia and many children who do not naturally divine the relationship between sounds and letters have grave difficulties learning to read. Most children require the code to be explicitly taught. Instructional strategies that initially assist beginning readers to understand the nature of the code and then build upon that foundational knowledge emphasizing comprehension and other strategies, become competent readers [75]. Failure to present this vital information results in a large number of children who experience reading failure. Colleges of education are complicit in this conspiracy and are negligent when they forsake to educate pre-service teachers in the Science of Reading. Failure to do so results in teachers who know very little about the specific nature of reading acquisition and who are unable to assist struggling readers. It is imperative that students who desire to be teachers have a strong knowledge base in the Science of Reading. The continued failure to adequately prepare future teachers with regard to the Science of Reading, reading acquisition, the nature of dyslexia, assessment and interventions will result in a continuation of reading acquisition failure. This is extremely unfortunate in that the knowledge, skills and technology exist so that reading failure can be prevented or attenuated.

It is clear that pre-service and seasoned teachers along with professors of education who teach these individuals have insufficient knowledge with regard to the Science of Reading; the underlying principles related to reading and it subcomponents that guide reading instruction, evaluation and intervention strategies. This is just not true with regard to reading acquisition in general, but training individuals with dyslexia to read. The root cause of this deficiency of knowledge rests squarely on colleges of education in two very important ways. The first involves the lack of appropriate training of individuals pursuing the educational doctorate and the second involves the lack of dissemination of the scientific literature to pre-service teachers by colleges of education faculty who lack exposure to science, research methods, design and analysis.

Higher Education's Contribution to Reading Failure

Doctoral training

Shulman et al., [76] wrote that "the problems of the education doctorates [Ed.D. and Ph.D.] are chronic and crippling. The purposes of preparing scholars and practitioners are confused; as a result neither is done well.". Purinton [77] argued that "Ed.D. programs—even highly ranked ones—have a long way to go in establishing their indispensable value; by far, such degrees have still not lived up to the standards set by other professional doctoral programs" (p: 25). The major deficiency with education doctorates is that they appear to lack the necessary training in research methods, design and analysis. Although these degrees often include coursework that include research methods, design and analysis, the incorporation of these courses into other content areas is lacking. "In education, the judgments of 'experts'

frequently appear to be unconstrained and sometimes altogether unaffected by objective research. Many of these experts are so captivated by romantic ideas about learning or so blinded by ideology that they have closed their minds to the results of rigorous experiments. Until education becomes the kind of profession that reveres evidence, we should not be surprised to finds its experts dispensing unproven methods, endlessly flitting from one fad to another. The greatest victims of these fads are the very students who are most at risk." [78]. As a result, it is critical that those pursuing education doctoral degrees have a very good working ability to engage in consuming research. There appears to be a serious lack of quality in educational research which [65] argued is directly related to weaknesses in doctoral preparation. In fact, the Carnegie Project on the Education Doctorate (CPED) was created to redesign the doctoral preparation to address the growing criticism regarding this lack of preparation. The CPED presently consists of 83 colleges and schools of education whose goal is to critically examine the doctorate in education. In particular, one of the initial goals was to differentiate the Ed.D., which was considered a practitioner doctorate preparing candidates to solve educational issues, from the Ph.D., which was considered a research-based doctorate that prepares candidates to be university faculty and educational scholars. Unfortunately, these two degrees fail to be differentiated in this manner. Frequently, neither degree provides the appropriate training in science for either of them to generate scientific knowledge that can be used to solve educational issues [79]. This is most certainly the case when reading acquisition failure is considered. Lastly, the curriculum often lacks practical relevance in relation to the educational issues that exist [80].

The second dimension of suggested pedagogy from the CPED is that "teaching and learning are grounded in theory, research, and in problems of practice." [81]. There is no doubt that this should be the case, teaching and learning should unequivocally be grounded in research and theory; however, the status quo in far too many doctorate programs in education is that research is not seriously emphasized, taught or integrated into doctoral program course content. The redesign of doctoral training in education must be framed around a scientist-practitioner or scholarly-practitioner model in which the process and content of science are firmly established. Otherwise, the discipline is doomed to continue following unsubstantiated notions that do not allow practitioners to firmly understand educational realities. In fact, the CPED suggests that the "scholarly practitioner" model be used by colleges of education use to build or redesign Ed.D. degree programs. The scholarly practitioner should have a very firm grasp of the process and content of science including the scientific method, understand the importance of science in solving educational issues and should consult the scientific literature when addressing educational problems.

Doctoral programs in education, whether the program provides training for the Ed.D. or the Ph.D. degree, should provide candidates considerable background in science which would include research methods, design and analysis with emphasis placed on incorporating these concepts within each content area and course. Doctoral students should engage the primary source literature in each class and become very proficient in its content. Students in Ph.D. programs should also be required to develop a research proposal in each content area and course that is strongly based on the scientific literature relevant to the course. This not only helps the student understand the importance and necessity of becoming proficient in a literature, but also helps them to learn the craft of the literature review and the research enterprise. Students pursuing the Ed.D. should be provided coursework that strongly emphasizes the importance of science in solving educational issues. Students should always search for solutions to educational issues from the scientific literature. To be able to do so requires that the student have a firm grasp of how to read scientific material and its importance. After students have a basic understanding of science, research methods, design and analysis, all students must also be proficient in the Science of Reading. This cognate should be part of each doctorate in education program. Before reading failure can be adequately addressed, a common thread of knowledge must be present in all of the following personnel; superintendents, principals, reading specialists, teachers, school support personnel, and paraprofessionals. This knowledge is necessary so that all have a common language in which to converse and have a reasonable expectation of providing appropriate interventions. This conversation must be led by those engaged in doctoral training so that the doctoral candidate will graduate with the appropriate knowledge. Other cognate areas should be determined by the specialization that the program wishes to offer, but it should be nonnegotiable that all doctorate in education programs include a substantial core of knowledge that emphasizes the importance of science in the pursuit of educational knowledge, presents research methods, design and analysis as stand-alone courses in addition to infusing this content into each course. These science-based courses should be presented at the very beginning of the student's course content and performance in these courses could act as a litmus test for continuing the degree. Additionally, the Science of Reading cognate must be part of each doctoral program. This is the only way that reading failure can be adequately addressed. Failure to provide essential knowledge in science and exposure to its literature continues to promulgate ignorance with regard to educational knowledge, which is particularly the case with regard to reading, reading acquisition and reading failure. Binks-Cantrell et al., [82] refer to this lack of knowledge as the Peter Effect [83] in which individuals cannot teach what they do not know themselves. There is no specialization area that would lead to a doctorate in education that could forgo the Science of Reading content. One might argue that this information is not pertinent to the doctor of education degree (e.g., curriculum and design, administration or leadership), but this is simply not accurate. Understanding the nature of reading acquisition and how to rectify acquisition failure is vitally important. This content must be firmly addressed in the curricula of both the Ed.D. or Ph.D. Failure to do otherwise continues the trend of failing to meet the needs of children with dyslexia, their families and society in general that requires that it citizens read and read well.

It is critically important that individuals who will become faculty members in colleges of education have the knowledge contained within the Science of Reading. The great failure has been the lack of training in the Science of Reading in colleges of education

faculty members. The current state of affairs of the Science of Reading has provided considerable information regarding the acquisition of reading skills, particularly in children who have dyslexia and reading difficulties, the nature of evaluation and assessment, and science-based interventions and curricula. The abysmal performance of pre-service and in-service teachers and college of education faculty on the content of the Science of Reading trickles down to the students who are suffering due to the lack of training of all of these individuals. The Science of Reading needs to be requisite for both doctor of education degrees.

Given the vital importance of correcting the dilemma facing our nation's colleges of education, public and private elementary and secondary schools with regard to reading failure, it is recommended that colleges of education only hire faculty who have been trained in the Science of Reading during their doctoral training. For those who have not, it is also recommended that colleges of education provide post-doctoral training in the Science of Reading. There will be those who argue that this is not necessary, but the fact that nearly 20% of our nation's children have dyslexia and that 32% of fourth graders were reading at a level below Basic and 65% were reading at a level below proficient [84] are very strong counter arguments for this position. It is essential that colleges of education faculty have the requisite knowledge to dispense the science-based and appropriate knowledge to teach reading to pre-service teachers. Failure to do so will only prolong the inability of students to acquire proficient reading skills. As articulated by Louisa Moats, "Everyday I'm in a school and working with teachers I continue to be astounded by the gulf of knowledge, the gulf between our knowledge base in the scientific community and the practices that go on in teacher training" [85].

Graduate training

The same arguments as articulated above should also apply to any graduate training in education, be it the master's in education degree or the educational specialist degree (Ed.S.). It is critically important that these degrees have content with regard to science, research methods, design, statistics, and the nature of dyslexia and reading failure which should include coverage of etiology (genetic and neurological), characteristics related to children who experience dyslexia and reading failure, characteristics of dyslexia, evaluation tools, and science-based interventions and curricula with practicum experience based on the content concerning the Science of Reading. A graduate degree in reading absolutely must comprehensively and specifically cover these content areas.

Undergraduate training

At the undergraduate level, many teacher education programs do not provide adequate training for pre-service teachers [59,86,87]. As mentioned above, pre-service teachers perform poorly on their knowledge of the Science of Reading. Reorganizing and restructuring colleges of education courses to include the Science of Reading is necessary. A core curriculum for pre-service teachers should include coursework covering reading psychology and development, the structure of language, applying best practices in reading instruction and using validated, reliable and efficient assessments to inform classroom instruction [44]. Unfortunately, only a very small number of colleges of education include such coursework. This led [58] to develop a strategy where colleges of education could be rated on their ability to provide instruction. An alarmingly great many of the colleges of education provided minimal to no training in the Science of Reading. This is certainly disappointing as research has determined interventions that are successful in improving reading skills of students experiencing reading failure [88]. The vast majority (78%) of elementary education programs were found to have curricula that did not "adequately address strategies for struggling readers" [58] for Standard 4: Struggling Readers. The authors indicated that the criterion used to determine if a program met this standard was quite low. Even so, nearly 80% of the programs failed to meet this standard.

What specifically should be taught?

Pre-service teachers must be provided with a curriculum that includes the Science or Reading. The Science of Reading corpus includes the nature of reading, how reading should be taught, evaluation tools for determining appropriate progress in reading and interventions that are useful to assist struggling readers to become competent readers. However, prior to students' exposure to the Science of Reading, they must also have exposure to prerequisite courses that would allow them to understand the mechanics of the Science of Reading.

A very useful guide in developing the curriculum for pre-service teachers can be found in the Knowledge and Practice Standards for Teachers of Reading that was developed by the International Dyslexia Association **(Tables 1 and 2)**. The Knowledge and Practice Standards for Teachers of Reading includes essential knowledge (Section I) in addition to standards concerning demonstrating the knowledge and skills that teachers should have to provide services to students with dyslexia or reading difficulties (Section II). The standards in Section I comprise oral and written learning, knowledge of the structure of language, phonology, phonics and word recognition, fluency, vocabulary, comprehension, handwriting, spelling, written expression, assessment for planning instruction, and knowledge of dyslexia and other learning disorders. The standards in Section II concern the demonstration that the teacher is competent to teach reading (Level I) and for specialists who intend to provide services to individuals with dyslexia and other learning disorders.

It is recommended that pre-service teachers fulfill prerequisite courses before exposure to the content of the Knowledge and Practice Standards. These prerequisites would be comprised of research methods, linguistics, cognition and a course outlining the Science of Reading. Section II of the Knowledge and Practice Standards lists practicum experiences that are recommended. If the Knowledge and Practice Standards are not used as a guide for developing the sequence of courses, then two different practicum experiences should be included **(Table 3)**. The rationale for the prerequisite courses concerns providing the appropriate background knowledge so that pre-service teachers could benefit from the courses designed from the Knowledge and Practice Standards. The course would be an overview of the

Table 1 Section 1 of the knowledge and practice standards for teachers of reading.

Section 1 Knowledge and Practice Standards	
Areas	**Examples**
Foundation Concepts about Oral and Written Learning	This section outlines the standards regarding the knowledge and application related to the influence that oral and written language contributes to reading and writing, cognition and behavior that affect reading and writing, environmental, cultural and social factors, typical development, causal relationships of the above, and reasonable goals and expectations for learning. Phonological, orthographic, semantic syntactic and discourse processing; attention, executive function, memory, processing speed, graphomotor control; development of oral language, phonological skill, printed word recognition, spelling, reading fluency, reading comprehension, written expression.
Knowledge of the Structure of Language	This section outlines the standards that refer to the individuals teaching reading should have regarding the structure of language with regard to phonetically regular and irregular words, common morphemes and sentence structure. Phonology (concepts regarding vowels and consonants), orthography (graphemes, high frequency and irregular words, orthographic rules, syllable types), morphology (common morphemes in the English Writing System), semantics (semantic organization), syntax (distinguish phrases, dependent and independent clauses in sentences, parts of speech) and discourse organization (narrative and expository discourse, construct expository paragraphs, identify cohesive devices in text).
Structured Language Teaching: Phonology	This section outlines the standards that refer to teaching phonology. Underdeveloped phonological processing has been identified as a core weakness in individuals who have dyslexia. Teaching phonological processing skills is a very important component in remediating poor reading skills. Identify goals of phonological skill instruction, know the progression of phonological skill development (rhymes, syllables, onset-rimes, phonemes), principles of phonological skill instruction (brief, multisensory, conceptual and auditory-verbal), understand the reciprocal nature of phonological processing, reading, spelling and vocabulary, and understand how the phonological features of a second language might interfere with English pronunciation and phonics.
Structured Language Teaching: Phonics and Word Recognition	This section outlines the standards that refer to teaching systematic phonics and accurate word decoding skills. Recognize how to order phonics concepts, understand explicit and direct teaching, understand multisensory and multimodal techniques, understand lesson format from word recognition to fluent application in meaningful reading and writing, understand research-based adaptations of instruction for students who have weaknesses in working memory, attention, executive functioning or processing speed and the application of the above concepts.
Structured Language Teaching: Fluent, Automatic Reading of Text	This section outline the standards that refer to teaching fluency. Underdeveloped or poor fluency is a characteristic of dyslexia and inhibits other reading processing including comprehension. Understand the role of fluency in reading, that fluency is a stage of normal reading development occurs with practice and may be a symptom of some reading disorders, understand the concepts of frustration, instructional and independent reading levels, what instructional activities are likely to improve fluency, techniques that will assist in reading motivation, and understand the appropriate use of assistive technology and the application of these concepts.
Structured Language Teaching: Vocabulary	This section outlines the standards that refer to vocabulary and its importance with regard to reading comprehension in addition to providing teachers information with regard to the importance of vocabulary in reading and listening and how to provide a classroom environment that is rich in access to vocabulary. Understand the role of vocabulary development and knowledge in comprehension, understand the role of direct and indirect methods of vocabulary instruction, know the techniques used to teach vocabulary before, during and after reading, understand the reasons for the considerable variability in students' vocabularies, and teaching word meaning.
Structured Language Teaching: Text Comprehension	This section outlines the standards that refer to reading comprehension, particularly teaching comprehension and identifying weaknesses that require intervention. Be familiar with teaching strategies that are appropriate before, during and after reading, contrast the characteristics of major text genres including narration, exposition and argumentation, understand the relationship between text comprehension and written composition, identify potential miscomprehension in text, understand the levels of comprehension including surface code, text base and mental model/situation model, understand factors that contribute to deep comprehension.
Structured Language Teaching: Handwriting, Spelling and Written Expression	This section outlines the standards that refer to handwriting, keyboarding, spelling and written expression including capitalization and spelling. Know research-based principles for teaching letter naming and letter formation, techniques for teaching handwriting fluency, recognize and explain the relationship between transcription skills and written expression, identify students' levels of spelling development and orthographic knowledge, be able to explain the influences of phonological, orthographic and morphemic knowledge on spelling, understand the major components and processes of written expression and their interactions, know grade and developmental expectations for students' writing and understand appropriate uses of assistive technology in written expression.

Interpretation and Administration of Assessments for Planning Instruction	This section outlines the standards that refer to interpreting and administering assessments for planning instruction. This section includes standards that must be demonstrated for not only the content knowledge and its application, but also competencies for teaching students with dyslexia and related difficulties. Understand the differences between screening, diagnostic, outcome and progress-monitoring assessments, the basic principles of test construction, including reliability, validity and norm-referencing and know the most well-validated screening tests, understand the principles of progress-monitoring and the use of graphs to demonstrate progress, know the range of skills typically assessed by diagnostic surveys of phonological, decoding, oral reading, spelling and writing skills, recognize the content and purposes of the most common diagnostic tests used by psychologists and educational evaluators, interpret measures of reading comprehension and written expression.
Knowledge of Dyslexia and Other Learning Disorders	This section outlines the standards that refer to understanding the nature of dyslexia and other learning disorders. Understand the most common intrinsic differences between good and poor readers, the tents of the NICHD/ IDA definition of dyslexia, that dyslexia and other reading difficulties exist on a continuum of severity, be able to identify the distinguishing characteristics of dyslexia and related reading and learning disabilities, identify how symptoms of reading difficulty may change over time in response to development and instruction, and understand federal and state laws that pertain to learning disabilities, especially reading disabilities and dyslexia.

Table 2 Section 2 of the knowledge and practice standards for teachers of reading.

Section 2: Guidelines pertaining to Supervised Practice of Teachers Who Work in School Settings	
Level	**Description and Requirements**
I	Description: This level is intended for novice teachers in training who implement an appropriate program with fidelity, formulate and implement an appropriate differentiated lesson plan, and demonstrate proficiency to instruct individuals with reading disability or dyslexia. Requirements: 1. Pass an approved basic knowledge proficiency exam. 2. Demonstrate, over time, instructional proficiency in all Level 1 areas outlined in table above. 3. Document significant student progress with formal and informal assessments as a result of the instruction.
II	Description: This level is intended for specialists who must demonstrate additional expertise and abilities to provide services to individuals with dyslexia and other learning disorders. Requirements: 1. Pass an approved basic knowledge proficiency exam. 2. Complete a one-to-one practicum with a student or small group of one to three well-matched students who have a documented reading disability. A recognized, certified instructor* provides consistent oversight and observations of instruction delivered to the same student(s) over time, and the practicum continues until expected proficiency is reached.** 3. Demonstrate (over time) instructional proficiency in all Level 1 and 2 areas outlined above. 4. Provide successful instruction to several individuals with dyslexia who demonstrate varying needs and document significant student progress with formal and informal assessment as a result of the instruction. 5. Complete an approved educational assessment of a student with dyslexia and/or language-based reading disability, including student history and comprehensive recommendations.

Note. *A recognized or certified instructor is an individual who has met all of the requirements of the level they supervise, but who has additional content knowledge and experience in implementing and observing instruction for students with dyslexia and other reading difficulties in varied settings. A recognized instructor has been recommended by or certified by an approved trainer mentorship program that meets these standards. The trainer mentorship program has been reviewed by and approved by the IDA Standards and Practices Committee.

**Documentation of proficiency must be: 1) Completed by a recognized/certified instructor providing oversight in the specified program; 2) Completed during full (not partial) lesson observations; and 3) Must occur at various interval throughout the instructional period with student.

technical aspects of the scientific method, design, analysis and how scientific results are communicated. It is important that pre-service teachers are provided with a framework to comprehend not only the knowledge contained within the Science of Reading, but to appreciate the procedures in which data are collected and analyzed. The suitability of pre-service teachers to engage in teaching reading will be determined by their understanding of the methods by which data are generated to answer specific questions that lead to practical applications. The course in linguistics will include phonology, phonetics, morphology, syntax, semantics and grammar so that the pre-service teacher will have specific knowledge regarding language. Having a working knowledge of language and its subparts is critical to understanding reading acquisition. The last prerequisite course should include content in cognition as much of the Science of Reading content was developed from cognitive science. As a result, a familiarity with the concepts, strategies and theories in this domain will prove to be essential. The content of this course

Table 3 Potential required courses to be included in an elementary education program to promote the science of reading.

Course Title	Course Content
Research Methods	Basics of scientific principles
Linguistics/Psycholinguistics	Introduction to linguistics
Cognition	Introduction to cognitive sciences which would include empirical methods, models, and data
Science of Reading	See Table 4
Science-based Reading Evaluation and Interventions	Theoretical basis of assessment instruments and their results in addition to developing individualized interventions based on assessment protocols
Practicum in Reading I	Evaluation of reading and comprehension utilizing phonological processing, phonics, fluency and vocabulary. Develop strategies to assist in the development of reading acquisition
Practicum in Reading II	Evaluation of reading and comprehension in struggling readers utilizing phonological processing, phonics, fluency and vocabulary. Develop strategies to assist in the development of reading acquisition

should include attention, memory, perception, language and metacognition. These three prerequisite courses should provide a working knowledge of the content that will prepare them for understanding the content within the Science of Reading courses. Other potential prerequisite courses could also include an introduction to human neuropsychology, memory, sensation and perception, and additional coursework in research methods.

The Science of Reading material could be offered as a single course or a series of courses; the material is voluminous **(Table 4)**. There is enough content that several courses could be offered to outline the specific details. Other topics could be included as well. It is essential those pre-service teachers are not only familiar with the content, but can apply it. The two practicum courses would be designed to address the application of the material learned in the Science of Reading course or courses, the first of which would involve assessment and evidence-based strategies to assist with reading acquisition while the second practicum course would involve assessment and intervention strategies specifically for struggling readers. The instructor would observe and evaluate each student's technique providing feedback during and after the process. The series of courses outlined above would provide pre-service teachers the knowledge and skills necessary for them to appropriately teach reading to their students, it would also provide them with the ability to identify children at risk for reading failure and to provide the necessary intervention. Pre-service teachers desperately want this information as they want to be the best-possible educators possible. Those who believed that their pre-service preparation was less than satisfactory were more likely to leave teaching [89]. There is also evidence that teacher turnover harms student achievement [90]. Teacher preparation programs

Table 4 Potential content for a science of reading course designed for undergraduate pre-service teachers.

Course Content
Writing Systems Alphabetically-Based Writing Systems History of English Writing System Orthography Languages that contributed to the English Writing System
History of Teaching Reading 1880 to present
Mechanics of English Writing System Letter-Sound Correspondence Phonics
Visual Processing and Reading
Phonology and Phonological Processing
Lexical Access
Fluency
Morphemes and Syllable Structure
Interdependence of Phonological Processing, Fluency, and Vocabulary
Comprehension
Literacy
Assessment of Dyslexia and Reading Difficulties
Interventions for Dyslexia and Reading Difficulties
The Role of Attention in Reading Attention Deficit Hyperactivity Disorder Appropriate assessment
Potential interventions The Effect of ADHD on Reading

must provide pre-service teachers with all of the knowledge and skills that will be needed to provide quality education to their students. Those who are ill-prepared to begin their teaching careers are likely to harm their students' academic achievement by first not knowing the appropriate reading acquisition and remediation strategies to provide to their students and then by leaving their profession. Students who struggle to learn to read are more likely to drop out of school. An enormous amount of human potential is not being realized due to the weaknesses throughout the educational process beginning with lack of rigor with regard to the Science of Reading during doctoral training which trickles down to pre-service teachers, reading specialists and masters-level educators. Colleges of education are behooved to develop the recommendations listed above.

Continuing education strategies

It is recommended that colleges of education develop continuing education strategies for in-service teachers to be exposed to the Science of Reading. This can be in the form of a potential master's degree in which the major focus is on the Science of Reading, or courses and activities to mirror what was recommended above with the training sequence of pre-service teachers. Success has occurred in professional development strategies to assist in-service teachers understand various aspects of the Science of Reading [91]. If in-service teachers are provided with the appropriate content in professional development opportunities, they can become proficient in their knowledge of the Science of Reading [92] outlines the issues with regard to professional development and the variables that must be addressed for positive change to occur. It was also found that when university

instructors were provided with professional development, their knowledge of the Science of Reading significantly improved as well as their pre-service teachers who they were teaching [93].

An example

The 79th Texas Legislature enacted House Bill 1, the "Advancement of College Readiness in Curriculum." The goal of Section 28.008 of the Texas Education Code was to increase the number of high school graduates who were ready to begin college or careers. In the bill, the Texas legislature required the Texas Higher Education Coordinating Board (THECB), which oversees post-secondary education in Texas, and the Texas Education Agency (TEA), which oversees public education, to determine how they could act together to prepare students for post-secondary education. The act also required the THECB and the TEA to create Vertical Teams, which were comprised of faculty from secondary and post-secondary institutions and was the organization that developed the College and Career Readiness Standards (CCRS). The THECB established the Texas Faculty Collaboratives Initiative so that faculty who were preparing pre-service teachers would have access to current information regarding the CCRS so that they could train pre-service teachers which, in turn, would allow pre-service teachers to more effectively prepare their students to become college and career ready.

The Texas Higher Education Collaborative (HEC) was created in 2000 to ensure that scientifically based reading research (SBRR) and scientifically based reading instruction (SBRI) were contained within pre-service teacher education programs, alternative certification programs, and community teacher preparation classes. The objectives of the HEC are to support the Reading First Initiative by insuring that college of education faculty present SBRI to pre-service teachers, assist college of education faculty to incorporate SBRR materials into their courses, establish a collaborative so that college of education faculty who prepare pre-service teachers could support each other, to address Reading First Initiatives and to provide professional development for elementary and special education teachers to insure appropriate reading achievement of students. The HEC provides opportunities for teacher preparation faculty from colleges, universities, community colleges and alternative certification programs to communicate and discuss issues related to reading in addition to providing informational materials. HEC also provides an online collaborative; HEC Online. Interestingly, the HEC encourages educational administrators to act as literacy leaders. HEC also supports and encourages Educational Leadership and Educational Administrator faculty to embed SBRR into their courses as well. The major focus is not only to ensure that SBRR is integrated in courses so that pre-service teachers learn about the Science of Reading, but also ensuring that all higher education faculty are proficient in the Science of Reading and that they are disseminating that information to all of their students regardless of degree or program.

HEC provides seminars, assists in revising syllabi and course requirements to reflect SBRR, participates in site visits to ensure implementation of SBRR, provides online discussion groups, examines implementation of HEC initiatives with faculty and pre-service teacher surveys and examines pre-service teachers' knowledge through surveys. Results of the HEC initiatives have indicated that higher-education faculty found participating in HEC activities to be highly beneficial. Not surprisingly, pre-service teachers were more knowledgeable with regard to the Science or Reading [94]. The success of the HEC initiatives are due to legislative action that compelled change to occur, strong and collaborative leadership in developing programs, secondary and post-secondary faculty collaborating to develop appropriate standards, providing the support for higher-education faculty, many of whom had little to no knowledge with regard to the Science of Reading, the opportunity to learn, to change their thinking and to change course content. The satisfaction of higher-education faculty in the support and materials that were gained from HEC led to changes in course content which then led to increased knowledge of the Science of Reading in pre-service teachers.

The Texas experience is a model for other states and indicates that it is possible to provide the types of change outlined above. An enormously important component that contributed to the success of Texas' initiative was that the knowledge and skills of research scientists were utilized in presenting at conferences and seminars hosted by HEC, many of whom are cited above. The content was driven by the Science of Reading (SBRR and SBRI), which is essential. Other states that attempt to create such an initiat, should model their programs very carefully to Texas' HEC. Imperative in this approach is to have a legislature that is appropriately informed regarding the necessity of the inclusion of the Science of Reading including SBRR and SBRI. There will be resistance as has been documented thoroughly above, and the typical legislator will need to be educated on the importance of the Science of Reading rather than be persuaded by those who fear and resist change. Developing a goal with regard to reading success and then assisting faculty in and outside of colleges of education to participate in the creation of programs to address embedding the Science of Reading into courses for pre-service teachers is also important. The main focus should be on the students, particularly struggling readers, all of whom are dependent on colleges of education to create appropriate coursework so that pre-service teacher can become in-service teachers competent in their ability to teach all students to read.

Conclusions

Approximately 20% of our nation's students are experiencing reading difficulties and the percentage of fourth-grade students who are reading below Basic and Proficient (33% and 58%, respectively) has not appreciably changed since 1992. Fortunately, there is a solution. First and foremost the history of ignorance, resistance and complacency needs to be exposed. Secondly, there is a scientific literature that prescribes how to improve reading abilities in young students. The solution involves providing pre-service teachers with the knowledge that will assist them to provide their students, particularly struggling readers, the types of assessment and interventions that will lead to improved reading skills. Reading courses must be developed or revamped to include the Science of Reading. In addition, pre-service teachers must be provided with the appropriate coursework such that they will be able to understand the mechanics of the Science

of Reading prior to their exposure to that information. There really is no reason that individuals with dyslexia cannot become competent readers.

For there to ever be gained and sustained any social progress regardless of the ultimate ideal; for as Chomsky observes, social revolutionary change is gradual and incremental, building upon previous gains; the population must be better educated. At minimal, people must be able to read both in print and online.

One of the primary goals of social progress has always been mass education. Education begins with reading, and learning to read begins with a proper understanding and application of the Science of Reading. Children not only need not resign themselves to perpetual literacy difficulty and only partaking in a limited envisioned future. There exists in the immediate present a corpus of knowledge represented in the Science of Reading that is being stifled and opposed by the uninformed, educational social structures and educational power elite. It is necessary that a revolution begin such that the Science of Reading is presented in colleges of education so that pre-service teachers can become competent to teach reading to all of their students. This is, in fact, what pre-service teachers actually desire and should demand; to become the most competent teachers possible. The most promising way to ensure that students with dyslexia and those who are experiencing reading failure can become competent readers is to expose the current tragedy of ignorance, complacency and resistance on the part of faculty within many colleges of education. It will be necessary to build stronger doctoral degrees in education with an emphasis on science, research methods, design and analysis along with substantial content within the Science of Reading. These faculty will then be competent to teach pre-service teachers reading acquisition strategies so that children will learn to read, even those with dyslexia and potential reading difficulties. "A society cannot afford to continue funding teacher training institutions whose educational philosophy promotes a bankrupt theory and its associated pedagogy in the name of social justice (or 'inquiry') in order to disguise their own intellectual bankruptcy. Alternatives to dysfunctional institutions must be created. A civically healthy society needs a system for teacher preparation that respects and honors rational approaches to issues in curriculum and instruction" [95]. The ability to create strong colleges of education whose mission involves utilizing science to solve educational issues and to disseminate the continued and growing knowledge contained within the Science of Reading is essential. Children with dyslexia and reading difficulties will continue to suffer until this is accomplished.

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30-LS0345\J
Glover
3/2/17

CS FOR HOUSE BILL NO. 64(EDC)

IN THE LEGISLATURE OF THE STATE OF ALASKA

THIRTIETH LEGISLATURE - FIRST SESSION

BY THE HOUSE EDUCATION COMMITTEE

Offered:
Referred:

Sponsor(s): REPRESENTATIVES DRUMMOND, Gara, Talerico

A BILL

FOR AN ACT ENTITLED

"An Act relating to the establishment of the Task Force on Reading Proficiency and Reading Instruction for All Students and on the Effects of Dyslexia on Some Students."

BE IT ENACTED BY THE LEGISLATURE OF THE STATE OF ALASKA:

*** Section 1.** The uncodified law of the State of Alaska is amended by adding a new section to read:

LEGISLATIVE FINDINGS. The legislature finds that

(1) approximately 47,000 students in the state do not meet Alaska English Language Arts standards as indicated by the Alaska Measures of Progress test, and reading proficiency scores on the National Assessment of Educational Progress for students in the state were stagnant from 2003 through 2015;

(2) the results on student assessments demonstrate that the state can improve reading instruction for students;

(3) dyslexia, the most common specific learning disability, affects between three and 17 percent of the student population and accounts for approximately 80 percent of

all specific learning disabilities;

(4) the scientific consensus is that, when learning to read, typical and atypical learners have overlapping instructional needs, including the need for highly knowledgeable and skilled reading teachers to improve reading proficiency outcomes; and

(5) the residents of this state hold the legislature, the governor, and the state Board of Education and Early Development accountable for student reading proficiency outcomes because the legislature, the governor, and the state Board of Education and Early Development are responsible for developing and implementing strongly justified education budget proposals and for leading reforms of the state's public education system.

*** Sec. 2.** The uncodified law of the State of Alaska is amended by adding a new section to read:

TASK FORCE ON READING PROFICIENCY AND READING INSTRUCTION FOR ALL STUDENTS AND ON THE EFFECTS OF DYSLEXIA ON SOME STUDENTS. (a) The Task Force on Reading Proficiency and Reading Instruction for All Students and on the Effects of Dyslexia on Some Students is established as a joint task force of the Alaska State Legislature. The purpose of the task force is to

(1) evaluate and make recommendations regarding reading instructional practices for all public school students in the state and the diagnosis, treatment, and education of children affected by dyslexia; and

(2) examine how current statutes and regulations affect reading proficiency outcomes.

(b) The task force established under (a) of this section shall

(1) examine

(A) the effects of dyslexia on reading proficiency outcomes in the state and in other jurisdictions;

(B) dyslexia education practices and laws in other jurisdictions;

(C) educational reforms related to reading that have been implemented in the state and the reasons for the success or failure of those reforms at the local level;

(2) evaluate and recommend

(A) methods to improve reading proficiency and reading instruction for all public school students in the state;

(B) legislative changes and measures to improve reading proficiency outcomes;

(C) methods to mitigate the effects of dyslexia on reading proficiency, including

(i) early screening, early identification, and early intervention for students in preschool through grade three;

(ii) screening, identification, and intervention for students in grades four through 12;

(iii) training all relevant educational staff in the use of evidence-based screening and identification instruments; and

(3) identify evidence-based, multi-sensory, direct, explicit, structured, and sequential approaches to instructing students affected by dyslexia.

(c) The task force shall complete interim and final reports summarizing the findings and recommendations of the task force, including proposed legislation for the Alaska State Legislature to consider. The task force shall submit to the governor, the state Board of Education and Early Development, and the senate secretary and chief clerk of the house of representatives an interim report not later than January 31, 2018, and a final report not later than January 31, 2019, and notify the legislature that each report is available.

(d) The task force consists of 15 members as follows:

(1) three members of the house of representatives appointed by the speaker of the house of representatives, including at least one member of the minority organizational caucus;

(2) three members of the senate appointed by the president of the senate, including at least one member of the minority organizational caucus;

(3) the commissioner of education and early development, or the commissioner's designee, who serves as a nonvoting member; and

(4) eight members of the public to be appointed jointly by the speaker of the house of representatives and the president of the senate as follows:

(A) one member who is an active or retired teacher in kindergarten through grade three with significant experience teaching reading to students developing typically and atypically in the state;

(B) one member representing either the Alaska Council of School Administrators or the Association of Alaska School Boards who is knowledgeable about reading instruction and dyslexia;

(C) one member representing the Alaska Association of Elementary School Principals who is knowledgeable about reading instruction and dyslexia;

(D) one member representing the University of Alaska who, for both typically and atypically developing students, is a highly knowledgeable and skilled teacher of reading and demonstrates the ability to pass this knowledge and skill on to student teachers, or if a candidate meeting the criteria in this subparagraph is not available, one member who is a nationally recognized expert in teaching reading to both typically and atypically developing students who demonstrates the ability to pass this knowledge and skill on to student teachers; and

(E) four members representing nonprofit organizations that are focused on issues related to reading and education, including one member who is a parent of a child with a reading disability.

(e) The members of the task force shall select a chair from the voting members of the task force. The task force meets at the call of the chair and shall meet at least six but not more than 10 times annually. A majority of the members of the task force constitutes a quorum.

(f) A vacancy on the task force shall be filled in the same manner as the original selection or appointment. If a member has a conflict of interest with respect to a matter before the task force, the member may not take action on that matter. The remaining members of the task force shall consult with an expert regarding the matter before the task force.

(g) The task force may request data and other information from the Department of Education and Early Development, school districts, and other state agencies.

(h) The staff of the legislative members of the task force shall provide administrative and other support to the task force.

(i) Public members of the task force serve without compensation. The task force shall meet telephonically. Members of the task force are not entitled to per diem or travel expenses.

(j) The task force expires on January 31, 2019.

(k) In this section,

(1) "dyslexia" means a learning disability that is neurobiological in origin and

is characterized by difficulties with accurate or fluent word recognition and by poor spelling and decoding abilities;

(2) "relevant educational staff" includes school psychologists, special education teachers, other teachers, principals, and superintendents; and

(3) "task force" means the Task Force on Reading Proficiency and Reading Instruction for All Students and on the Effects of Dyslexia on Some Students.

30-LS0345\O
Glover
4/11/17

SENATE CS FOR CS FOR HOUSE BILL NO. 64( )

IN THE LEGISLATURE OF THE STATE OF ALASKA

THIRTIETH LEGISLATURE - FIRST SESSION

BY

Offered:
Referred:

Sponsor(s): REPRESENTATIVES DRUMMOND, Gara, Talerico, Spohnholz, Birch, Tarr, Josephson

A BILL

FOR AN ACT ENTITLED

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(3) dyslexia, the most common specific learning disability, affects between three and 17 percent of the student population and accounts for approximately 80 percent of

all specific learning disabilities;

(4) the scientific consensus is that, when learning to read, typical and atypical learners have overlapping instructional needs, including the need for highly knowledgeable and skilled reading teachers to improve reading proficiency outcomes;

(5) parents and other caregivers are responsible for ensuring that their children learn to read through the public school system or other means of instruction; and

(6) the residents of this state also hold the legislature, the governor, and the state Board of Education and Early Development accountable for statewide student reading proficiency outcomes because the legislature, the governor, and the state Board of Education and Early Development are responsible for developing and implementing strongly justified education standards and for leading reforms of the state's public education system.

*** Sec. 2.** The uncodified law of the State of Alaska is amended by adding a new section to read:

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(C) educational reforms related to reading that have been implemented in the state and the reasons for the success or failure of those reforms at the local level;

(2) evaluate and recommend

(A) methods to improve reading proficiency and reading instruction for all public school students in the state;

(B) legislative changes and measures to improve reading proficiency outcomes;

(C) methods to mitigate the effects of dyslexia on reading proficiency, including

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(3) identify evidence-based, multi-sensory, direct, explicit, structured, and sequential approaches to instructing students affected by dyslexia.

(c) The task force shall complete interim and final reports summarizing the findings and recommendations of the task force, including proposed legislation for the Alaska State Legislature to consider. The task force shall submit to the governor, the state Board of Education and Early Development, and the senate secretary and chief clerk of the house of representatives an interim report not later than January 31, 2018, and a final report not later than January 31, 2019, and notify the legislature that each report is available.

(d) The task force consists of 15 members as follows:

(1) three members of the house of representatives appointed by the speaker of the house of representatives, including at least one member of the minority organizational caucus;

(2) three members of the senate appointed by the president of the senate, including at least one member of the minority organizational caucus;

(3) the commissioner of education and early development, or the commissioner's designee, who serves as a nonvoting member; and

(4) eight members of the public to be appointed jointly by the speaker of the house of representatives and the president of the senate as follows:

(A) one member who is an active or retired teacher in kindergarten

through grade three with significant experience teaching reading to students developing typically and atypically in the state;

(B) one member representing either the Alaska Council of School Administrators or the Association of Alaska School Boards who is knowledgeable about reading instruction and dyslexia;

(C) one member representing the Alaska Association of Elementary School Principals who is knowledgeable about reading instruction and dyslexia;

(D) one member representing the University of Alaska who, for both typically and atypically developing students, is a highly knowledgeable and skilled teacher of reading and demonstrates the ability to pass this knowledge and skill on to student teachers, or if a candidate meeting the criteria in this subparagraph is not available, one member who is a nationally recognized expert in teaching reading to both typically and atypically developing students who demonstrates the ability to pass this knowledge and skill on to student teachers; and

(E) four members representing nonprofit organizations that are focused on issues related to reading and education, including one member who is a parent of a child with a reading disability.

(e) The members of the task force shall select a chair from the voting members of the task force. The task force meets at the call of the chair and shall meet at least six but not more than 10 times annually. A majority of the members of the task force constitutes a quorum.

(f) A vacancy on the task force shall be filled in the same manner as the original selection or appointment. If a member has a conflict of interest with respect to a matter before the task force, the member may not take action on that matter. The remaining members of the task force shall consult with an expert regarding the matter before the task force.

(g) The task force may request data and other information from the Department of Education and Early Development, school districts, and other state agencies.

(h) The staff of the legislative members of the task force shall provide administrative and other support to the task force.

(i) Public members of the task force serve without compensation. The task force shall meet telephonically. Members of the task force are not entitled to per diem or travel expenses.

(j) The task force expires on January 31, 2019.

(k) In this section,

(1) "dyslexia" means a learning disability that is neurobiological in origin and is characterized by difficulties with accurate or fluent word recognition and by poor spelling and decoding abilities;

(2) "relevant educational staff" includes school psychologists, special education teachers, other teachers, principals, and superintendents; and

(3) "task force" means the Task Force on Reading Proficiency and Reading Instruction for All Students and on the Effects of Dyslexia on Some Students.