

Nevada's Dyslexia Resource Guide

September 2015



Office of Special Education
Nevada Department of Education
700 E. Fifth Street, Suite 106
Carson City, NV 89701
775-687-9171

Acknowledgement

This resource guide is presented by the Nevada Department of Education (NDE). We gratefully acknowledge the Arkansas Department of Education (ADE) for their contributions to this guide. In conducting further research, it was made evident that AB 341 was modeled after Arkansas's legislation, and the research included within this document was conducted by the ADE.

Purpose

The purpose of the Nevada Resource Guide is to provide educators and parents with guidance and resources to meet the requirements of AB 341. This guide will assist in clarifying the assessment, identification, and services for these students.

This document is for guidance purposes only and we fully acknowledge that districts will have the authority to make decisions regarding diagnostic tools and instructional programs to use within their schools. This document will be updated as additional resource materials become available.

Table of Contents

Introduction

Section I: Defining Dyslexia

Section II: Early Indicators and Characteristics of Dyslexia

Section III: Response to Intervention

Section IV: Dyslexia Screening

Section V: Instructional Approaches for Students with Dyslexia

Section VI: Dyslexia Professional Development

Section VII: Special Education and Dyslexia

Appendix A: Glossary

Appendix B: References

Appendix C: Definition of Dyslexia

Appendix D: Accommodations

Appendix E: Programs, Training, and Resources

Introduction

Dyslexia refers to a learning disability that affects reading and writing. What dyslexia is, what causes it, and what can be done about it are commonly misunderstood topics. For example, a commonly held belief is that dyslexia results from seeing things reversed. When in fact, dyslexia is not due to a problem with vision, but rather a problem within language.

Although much remains to be learned about dyslexia, remarkable progress has been made in our understanding as a result of decades of research. The goal of this guide is to provide information about dyslexia that is intended to be helpful to educators, parents, and students. This resource guide should be regarded as a fluid document, which includes relative research, best practice, and peer-reviewed methodology. As such, as relevant information becomes available it is the intention of the Nevada Department of Education to update this guide as appropriate.

Section I

Defining Dyslexia

It is important to acknowledge that students may struggle in learning to read for many reasons, including lack of motivation and interest, weak preparation from the pre-school home environment, weak English language skills, or low general intellectual ability (Snow, Burns, & Griffin, 1998). In fact, the family and socio-cultural conditions associated with poverty actually contribute to a broader and more pervasive array of reading difficulties in school-aged children than do the neurological conditions associated with dyslexia. Students with dyslexia represent a *subgroup* of all the students in school who experience difficulties learning to read. Dyslexia is defined in Nevada Administrative Code 388: ***“Dyslexia” means a neurological learning disability characterized by difficulties with accurate and fluent word recognition and poor spelling and decoding abilities that typically result from a deficit in the phonological component of language.***

These characteristics are often unexpected in relation to other cognitive abilities. This definition is borrowed from the most widely accepted current definition of dyslexia that is used by the International Dyslexia Association:

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 growth of vocabulary and background knowledge.

It is useful to consider each of the elements of this definition:

Dyslexia is a specific learning disability that is neurological in origin. Dyslexia is a term used to refer to a specific type of learning disability. It is important to understand that students can display characteristics of a specific learning disability as defined in, the Individuals with Disabilities Education Act (IDEA, 2004), but may not be eligible for an Individualized Education Program due to the fact that he or she does not require special education and related services to make meaningful educational progress.

The Nevada Administrative Code, which governs the provision of special education services to students with disabilities, specifies that each school district is responsible for ensuring that all children with disabilities, within its jurisdiction, who are in need of special education and related services are identified, located, and evaluated. The regulations make clear that having a disability in and of itself does not make a child eligible for special education services. The child must also have a need for special education and related services arising from that disability. The impact of the disability on the child must be significant enough that it adversely affects the student's access to general education curriculum, and the child's ability to make meaningful educational progress.

The statement that dyslexia is neurological in origin implies that the problem is not simply one of poor instruction or effort on the part of the student. We know that individuals with dyslexia struggle to read well despite adequate instruction and effort. We know that dyslexia tends to run in families. A child from a family with a history of dyslexia will not necessarily have dyslexia but inherits a greater risk for reading problems than does a child from a family without a family history of dyslexia. Brain imaging studies show differences in brain activity when individuals with dyslexia are given reading-related tasks compared to the brain activity shown by normal readers. Although it is tempting to view differences in brain activity as the

cause of dyslexia, these differences are just as likely or even more likely to be a consequence of the reading problem rather than the cause of it. The reason for saying this is that when individuals with dyslexia respond positively to intervention, their brain activity “normalizes” and becomes comparable to that of normal readers.

Dyslexia is characterized by difficulties with accurate and/or fluent word recognition and by poor spelling and decoding abilities. A common feature of dyslexia is difficulty with accurate and/or fluent word recognition and by poor spelling and decoding abilities. Although students with dyslexia can show a variety of subtle or not-so-subtle language problems prior to entry in school (Catts & Kahmi, 2005), their problems become very noticeable once they begin learning to read. They have extreme difficulties acquiring accurate and fluent phonemic decoding skills (phonics), and this interferes with their ability to read text accurately or to read independently. Students with dyslexia struggle to acquire both knowledge of letter-sound correspondences and skill in using this knowledge to “decode” unfamiliar words in text. In first grade, their difficulties with accurate word identification quickly begin to interfere with the development of text reading fluency. Difficulties decoding unfamiliar words in text interfere with the development of fluency because, to become a fluent reader in the primary grades, students must learn to recognize large numbers of words automatically, or at a single glance. Students learn to recognize individual words “by sight” only after they accurately read them several times (Ehri, 2002). Thus, the initial difficulties that students with dyslexia have in becoming accurate and independent readers interfere with the development of their “sight word vocabularies,” and they quickly fall behind their peers in the development of reading fluency.

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. The discovery that students with dyslexia experience difficulties processing the phonological features of language was important in establishing the foundations of the current scientific understanding of dyslexia (Liberman, Shankweiler, & Liberman, 1989). The phonological processing problems of students with dyslexia are usually not severe enough to interfere with the acquisition of speech, but they sometimes produce delays in language development, and they significantly interfere with the development of phonemic awareness and phonics skills for reading. Spoken words are composed of strings of phonemes, with a phoneme being the smallest unit of sound in a word that makes a difference to its meaning. Thus, the word *cat* has three phonemes, /c/-/a/-/t/. If the first phoneme is changed to /b/, it makes the word *bat*, or if the second phoneme is changed to /i/, it makes the word *bit*. When students first begin to learn to read, they must become aware of these individual bits of sound within syllables so they can learn how our writing system represents words in print. The letters in printed words correspond roughly to the phonemes in spoken words. Once a child understands this fact, and begins to learn some of the more common letter/sound correspondences, he/she becomes able to “sound out” simple unfamiliar words in print. Skill in using phonemic analysis to identify words that have not been seen before in print (and beginning readers encounter these words in their reading almost every day) is one of the foundational skills required in learning to read text independently (Share & Stanovich, 1995). Because of their phonological processing difficulties, students with dyslexia experience difficulties acquiring phonemic awareness, which is followed by the difficulties learning letter sounds and phonemic decoding skills that have already been described. Phonological processing skills are only moderately correlated with general intelligence, so it is possible to have average, or above average general intellectual ability and still experience the kind of reading difficulties observed in students with dyslexia. A student can

also have below average general intellectual skills and have the same kind of phonological processing disabilities. Dyslexia is *not caused* by low general intellectual ability, but rather by special difficulties processing the phonological features of language, that can co-exist with above average, average, or below average general intellectual ability. Phonological processing abilities required for acquisition of early reading skills are normally distributed in the population, just like musical talent, athletic ability, or most other human abilities. It is possible to have extremely weak phonological processing skills, or to be only mildly impaired in this area. It is also possible to have above average skills in the phonological domain. If students have extreme phonological processing weaknesses, it is very difficult for them to acquire early reading skills, while students with mild difficulties in this area often require only a moderate amount of additional general education intervention to become good readers (Wagner & Torgesen, 1987).

Secondary consequences may include problems in reading comprehension and reduced reading experience that can impede growth of vocabulary and background knowledge. One of the most serious consequences of early difficulties becoming an accurate, confident, fluent, and independent reader is that students read less. For example, a study from 1988 indicated that students reading at the 50th percentile (average) in 5th grade read about 600,000 words in and out of school during the school year. In contrast, students reading at the 10th percentile read about 50,000 words during the same period of time (Anderson, Wilson, & Fielding, 1988). Large differences in reading practice emerge as early as the beginning of first grade (Allington, 1984). In addition to directly affecting the development of reading fluency, these practice differences have a significant impact on the development of other cognitive skills and knowledge, such as vocabulary, reading comprehension strategies, and conceptual knowledge (Cunningham & Stanovich, 1998). This latter type of knowledge and skill, in turn, is important for comprehension

of texts in upper elementary, middle, and high school (Rand, 2002). Of course, other “secondary consequences” to the child’s self-esteem and interest in school can be just as important as the effect on intellectual skills in determining ultimate school success.

Section II

Early Indicators and Characteristics of Dyslexia

Characteristics of students with dyslexia follow from how it is defined. Students with dyslexia are likely to perform poorly on measures of phonological processing, decoding non-words, and developing an adequate pool of sight words. Beginning with phonological processing, measures of phonological awareness tend to be most predictive of success at early reading. Common phonological awareness tasks include elision (saying a word after dropping a sound), blending, and identifying sounds in words. Phonological memory can also be affected, and phonological memory tasks can be particularly useful for young children who sometimes find phonological awareness tasks too cognitively complex to understand. Common phonological memory tasks include digit span and non-word repetition. Finally, learning to read involves pairing pronunciations with visual symbols. Rapid naming tasks measure the extent to which children have been able to link pronunciations with symbols. Examples of rapid naming tasks include quickly naming of objects, colors, digits, and letters.

Turning to reading, difficulty in learning the names and sounds of letters is an early indicator of dyslexia. Perhaps the most central characteristics of dyslexia are problems in word-level reading. Difficulties are found in both accuracy and speed or efficiency at decoding nonwords and sight words. Difficulty with reading words results in slow and error-prone oral reading fluency. Spelling and writing problems are common. Reading comprehension difficulties are also common, but are considered to be largely a secondary problem caused by the primary problem of difficulty in fluently reading the words on the page.

Children likely to have difficulties learning to read can be identified as early as preschool or kindergarten, but it is frequently not possible to differentiate in preschool or kindergarten between students who have dyslexia, and students who are at risk for reading problems for other reasons. For example, the clearest early indicators of dyslexia in kindergarten are difficulties acquiring phonemic awareness, learning letter/sound correspondences, and learning to decode print using phonemic decoding strategies (Rayner, Foorman, Perfetti, Pesetsky, & Seidenberg, 2001). Unfortunately, many children of poverty, or those with limited exposure to Standard English in their homes, also manifest these same types of difficulties in kindergarten. An accurate diagnosis of dyslexia in preschool or kindergarten is more likely when these problems occur in students who: 1) have strong abilities in other areas of language such as vocabulary; 2) come from homes that provide a language and print rich preschool environment; and, 3) have a first or second-degree relative who experienced severe early reading difficulties. However, inherent phonological processing difficulties can also occur in children of poverty who come to school with limited vocabularies and knowledge of print. Although the phonological weaknesses of these students most likely result from a lack of certain kinds of language experience in the home, they may also be the result of biologically based, inherent phonological processing weaknesses.

Section III

Response to Intervention

AB341 section 15- 9. “Response to scientific, research-based intervention” means a collaborative process which assesses a pupil’s response to scientific, research-based intervention that is matched to the needs of a pupil and that systematically monitors the level of performance and rate of learning of the pupil over time for the purpose of making data-based decisions concerning the need of the pupil for increasingly intensified services.

Response to Intervention (RTI) is designed to ensure all students receive effective, research-based instruction to meet their needs, i.e. a match between instruction, task and entry skills of the student. RTI frameworks combine prevention and intervention with ongoing assessment in a school-wide system to identify students’ instructional needs and appropriate learning supports including instruction and task. The Individuals with Disabilities Education Act (IDEA, 2004) allows for the use of a student’s response to intervention for identifying specific learning disabilities, including dyslexia. Importantly, the IDEA law requires a student be provided high-quality, research-based general education instruction to ensure a student’s difficulties are not the result of inadequate instruction. Thus, RTI provides a framework to coordinate levels of instruction and intervention and to document high-quality instruction.

AB341 sets forth requirements specific to student displaying indicators for Dyslexia and RTI:

AB341 section 9-2. If an early literacy screening assessment administered pursuant to subsection 1 confirms that a pupil has indicators for dyslexia, the board of trustees of a school district or governing body of a charter school, as applicable, shall address the needs of the pupil through the response to scientific, research-based intervention system of instruction.

The most common implementation systems of RTI in Nevada are; Instructional Consultation Teams and multi-tiered systems of support. Both systems use a combination of

screening tools, effective classroom instruction, intervention, coaching, and data-based decision making to support students within a school. Within each tier, students receive instruction using scientifically research based instructional practices. It is important to note that regardless of advancement through the tiers or whether additional resources are to be later allocated for the student, existing instruction must be revised to support the student's needs while other resources are being utilized.

If the interventions have been delivered with fidelity yet the student fails to adequately make progress; or the next level/nature/intensity of interventions is more like special education than regular education, suspicion of a disability may arise.

Tier I: Core Instruction

Tier I Core Instruction focuses on providing effective, research-based instruction to all students in general education and provides the foundation for successful RTI. Tier I, or classroom instruction focuses on the essential, grade-specific, reading standards across content areas and does meet the needs of the large majority of students, allowing them to successfully meet grade level expectations. High quality, effective reading instruction is paramount prior to screening for and identifying students who may need Tier II intervention.

As part of Tier I, all students in grades K-3 are screened on reading measures to determine instructional needs and identify students with risk factors or reading deficits.

SB391 Sec. 5. 1. The board of trustees of each school district and the governing body of each charter school shall prepare a plan to improve the literacy of pupils enrolled in kindergarten and grades 1, 2 and 3. Such a plan must include, without limitation:(a) A program to provide intensive instruction to pupils (b) Procedures for assessing a pupil's proficiency in the subject area of reading using valid and reliable assessments that have been approved by the State Board by regulation: (1) Within

the first 30 days of school after the pupil enters kindergarten or upon enrollment in kindergarten if the pupil enrolls after that period; and (2) During grades 1, 2 and 3.

Assessment results may indicate a student needs supplemental intervention supports in addition to Tier I instruction. However, regardless of assessment results a teacher may initiate the Instruction Consultation process at any time for any reason in schools that implement the same . If screening results identify a large number of students with risk factors, school personnel should consider the fidelity of the administration of the screening tools, the adequacy of the core curriculum, and/or whether differentiated learning activities need to be added to better meet the needs of the students. Differentiated learning practices can involve meaningful pre-assessments, flexible grouping based on needs, instructional supports such as peer-tutoring or learning centers, and accommodations to ensure that all students have access to the instructional program. Effective Tier I Core Instruction is the first line of defense. It is critical that classroom teachers build skills in effective, research-based reading instruction that includes the five essential components (phonemic awareness, phonics, comprehension, fluency, and vocabulary) and provides differentiated instruction to meet the needs of all students.

Tier II: Supplemental Intervention

Screening tools, instructional assessments, teacher observation, and student work samples could potentially identify those students at risk for poor learning outcomes. Students that demonstrate risk indicate a skill level where success would be unlikely without a supplemental or intensive, targeted intervention in Tier II or Tier III.

While all students in grades K-3 will be screened for general reading measures AB341 calls for additional specific screening of Dyslexia for those students who *have indicators for dyslexia; and need intervention.*

AB 341 Sec. 9. 1. The board of trustees of a school district or the governing body of a charter school, as applicable, shall administer the early literacy screening assessment prescribed pursuant to section 8 of this act to each pupil enrolled in kindergarten or grade 1, 2 or 3 who:

- (a) Has indicators for dyslexia; and***
- (b) Needs intervention.***

This screener must include the following:

Phonological and phonemic awareness; Sound-symbol recognition; Alphabet knowledge; Decoding skills; Rapid naming skills; and Encoding skills.
Information gained from this screener may be used to establish appropriate Tier II interventions.

Prior to the implementation of Tier II interventions NAC 388.420 requires that:

NAC 388.325 Provision of targeted scientific, research-based intervention for pupil with academic or behavioral difficulty; notice to parents concerning right to request evaluation. ([NRS 385.080](#), [388.470](#), [388.520](#))

1. If a pupil is experiencing an academic or behavioral difficulty but is not suspected of having a disability by the public agency, the public agency may attempt to remediate such a difficulty through targeted scientific, research-based intervention.
2. If the public agency determines that a pupil should be provided targeted scientific, research-based intervention, the public agency shall develop an intervention plan for the pupil, which must include, without limitation:

(a) An identification of the academic or behavioral concerns, which describes the degree of discrepancy between the demands of the educational setting and the performance of the pupil;

(b) The targeted scientific, research-based intervention to be provided which must be:

(1) Based upon an examination of the characteristics of the pupil as a learner, the instruction being provided and the curricular tasks to be accomplished by the pupil; and

(2) Targeted to improve the level of performance and increase the rate of learning of the pupil;

(c) A description of the progress-monitoring data which will be collected over time to measure the level of performance and rate of learning of the pupil; and

(d) A description of the frequency at which the data will be collected, the strategies which will be used to summarize and evaluate the data, the criteria for evaluating the effectiveness of the intervention and the schedule for evaluating the effectiveness of the intervention. A copy of the intervention plan must be provided to the parents of the pupil.

3. The public agency shall notify the parents of the pupil concerning the right of the parent to request an evaluation to determine whether the pupil is eligible for special education and related services.

Interventions are designed using formative assessments, summative assessments observations, and collaboration. In order to provide targeted interventions at the correct level of difficulty, educational staff must be able to identify the student's current prior knowledge level and capabilities. Establishment of the appropriate instructional window is not possible without first understanding what the student knows and what they are able to do. Best practice suggests

that a variety of data sources are preferable to a single data source, when making decisions and designing interventions for a student.

The results from this understanding are critical in planning interventions focused on the student's needs. Progress monitoring data is used to determine a student's response to intervention, as well as to determine the effectiveness of the targeted interventions.

When a student is not making sufficient progress, as measured by ongoing progress monitoring, the school-based decision making team should consider that the students particular needs are not being met under the current intervention plan or that the plan may not have been implemented with fidelity. If the school based decision-making team determined that the interventions were implemented with fidelity and sufficient progress did not result, the team may select from these options:

- Re-engagement in problem identification
- Intervention planning
- Implementation design

They may also determine that, at this point, the team has not identified an instructional match for the student. An instructional match includes the following:

- 93-97 percent activated prior knowledge within the context of the particular task.
- Appropriate working memory parameters
- 70-85 percent known items for drill and practice
- Appropriate amount of exposure to the new information
- Appropriate modeling of the task

Tier II intervention is in addition to the Tier I instruction. For many students, a supplemental, Tier II intervention provides the necessary support to improve reading achievement to grade-level expectations and maintains reading growth without further intervention.

Tier III: Intensive Intervention

Some students do not demonstrate adequate response to Tier I and Tier II intervention and continue to struggle with reading and/or fall further behind in reading achievement despite the increased supports provided by the supplemental Tier II intervention. Continued failure to reach grade-level expectations may result in a school-based decision-making team recommending entry into a Tier III reading intervention based on the needs of the student. Schools should continue to communicate and include parents in the decision process.

Students requiring a more intensive intervention (Tier III) may receive additional instructional time, individually or in a small group, with more targeted, specialized content or instructional delivery, increased practice and feedback opportunities, or attention given to cognitive processing strategies. Students receiving Tier III intervention also receive frequent and ongoing progress monitoring. Dyslexia intervention may occur at Tier II or Tier III. Dyslexia intervention is a general education component of RTI. In Tier II and Tier III, teachers continue to track student learning, establish goals, plan instruction, and make appropriate adjustments to instruction based on student progress toward achievement of state standards.

Referral for Special Education may occur if a student fails to make adequate progress. It is important to note that this process can begin prior to, or at any point during the RTI process as described above. (The referral process does not necessarily hinge upon the completion of the intervention process; however, students in active intervention are most likely premature for an evaluation referral).

Section IV Dyslexia Screening

Early identification of students at risk for reading difficulties is critical in developing the appropriate instructional plan. “The best solution to the problem of reading failure is to allocate resources for early identification and prevention.” (Torgesen, 2000). Initial dyslexia screening is the first step in identifying the students who are at risk. If the, dyslexia screening indicates that a student has characteristics of dyslexia; the Response to Intervention (RtI) process shall be used to address the needs of the student. Dyslexia screeners should be administered with fidelity to include without limitation, phonological awareness, sound symbol recognition, alphabet knowledge, decoding skills, rapid naming skills and encoding. While results of the dyslexia screening will identify struggling learners, they may not provide all of the information needed to develop an instructional plan, including appropriate interventions. Additional information may be needed to pinpoint areas of basic early reading skills that need acceleration.

Who should be screened?

According to AB341 Sec. 9.1. The board of trustees of a school district or the governing body of a charter school, as applicable, shall administer the early literacy screening assessment prescribed pursuant to section 8 of this act to each pupil enrolled in kindergarten or grade 1, 2 or 3 who: (a) Has indicators for dyslexia; and (b) Needs intervention.

The screening of students shall be performed with fidelity and include without limitation:

- 1) Phonological and phonemic awareness
- 2) Sound symbol recognition
- 3) Alphabet knowledge
- 4) Decoding skills
- 5) Rapid naming

6) Encoding skills

Personnel administering the dyslexia screener should be trained in the screening tools. School resources and enrollment will influence individual district decisions about who should give and score the screening tools. Because the data will be used to help guide instruction, classroom teachers should participate in dyslexia screening, scoring, and progress monitoring. Districts may choose any dyslexia screening tool(s) that appropriately meets the criteria set forth above and below. Included in this guide is a list of screening tools that may be used by districts. This list is not exhaustive and should not be regarded as such.

Dyslexia Screening	
Required Component	Possible Screening Tools
Phonological and Phonemic Awareness	DIBELS: First Sound Fluency (FSF) (K) DIBELS: Phoneme Segmentation Fluency (PSF) (K-1) AIMSWEB: Phoneme Segmentation Fluency (K-1) Abecedarian Reading Assessment: Phonological and Phonemic Awareness Phonological Awareness Skills Screener (PASS) (K-2 & struggling learners)
Alphabet Knowledge	DIBELS: Letter Naming Fluency (LNF) (K-1) AIMSWEB: Letter Naming Fluency (LNF) (K-1) Abecedarian Reading Assessment: Letter Knowledge Lakeshore: Alphabet Letter Knowledge Assessment Reading A-Z: Alphabet Naming Assessment
Sound Symbol Recognition	DIBELS: Nonsense Word Fluency (NWF) AIMSWEB: Letter Sound Fluency College Station TX, Texas A&M: Quick Phonics Screener (K-6) Scholastic: CORE Phonics Survey (K-8) Houghton Mifflin: Phonics/Decoding Screening Test
Decoding Skills	DIBELS: Nonsense Word Fluency (NWF) (K-2) DIBELS: Oral Reading Fluency (ORF) (1-6) AIMSWEB: Nonsense Word Fluency (K-1) Abecedarian Reading Assessment: Decoding DIBELS: Oral reading Fluency (ORF) (1-6) FCRR: Oral Reading Fluency Passages (7-12)
Rapid Naming	Arkansas Rapid Naming Screener (AR-RAN) (K-2 based on times)(3-12 based on observed behaviors)
Encoding	Word Journeys: Kindergarten Inventory of Spelling (KIDS) (K) Words Their Way: Primary Spelling Inventory (K-3) Words Their Way: Elementary Spelling Inventory (1-6) Words Their Way: Upper-Level Spelling Inventory (upper elem., middle, high school, postsecondary) Gentry's Developmental Spelling Inventory (K-8) FCRR: Phonics Screening Inventory (intermediate, middle, high school)

Section V

Instructional Approaches for Students with Dyslexia

Supplemental, intensive reading interventions for students with dyslexia should be individualized and focused on the student's area(s) of primary difficulty. Instruction for students with dyslexia includes a multisensory approach that includes reading, spelling, and writing as appropriate. Components of effective dyslexia intervention include instruction in phonemic awareness, graphophonemic knowledge, the structure of the English language, linguistics, language patterns, and strategies for decoding, encoding, word recognition, fluency, and comprehension. Effective interventions also consider the instructional delivery of the intervention. Instructional delivery considerations include individualization of the content and supports provided, extended time in small group instruction, explicit, direct, and systematic instruction, multisensory inputs, and a focus on meaning-based instruction. These intensive interventions differ from core instruction in that they are targeted towards the specific skills and components of instruction that are preventing students from making sufficient reading progress. In addition, the instructional delivery provides higher levels of support needed to help students accelerate their reading growth, however, no one remedial reading method works for all dyslexic students.

Students with characteristics of dyslexia should receive an appropriate, specialized dyslexia instructional program that:

- Is delivered by a professional in consultation with a person(s) that: Have received training in the *Methods to recognize indicators for dyslexia; and The science related to teaching a pupil with dyslexia (AB341 Sec 13-2)*.

- *Is systematic, multisensory offered in an appropriate setting that is derived from evidence-based research (AB341 Sec 15-3).*

- Provides instruction in the essential components of reading in a small-group or individual setting that maintains fidelity of the program that includes phonemic awareness, graphophonemic knowledge, structure of the English language, linguistic instruction, and strategies for decoding, encoding, word recognition, fluency, and comprehension.

Instructional Delivery

Dyslexia Intervention should provide explicit, direct, systematic and cumulative instruction that is individualized to support learning and focused on meaning. Additional intervention considerations include multisensory instruction to meet student needs.

The Nevada Department of Education does not approve specific dyslexia programs. It is the responsibility of school district instructional leaders to select a dyslexia program that meet the needs of each student.

Section VI

Dyslexia Professional Development

The board of trustees of each school district and the governing body of each charter school shall ensure that at least one employee who serves pupils in kindergarten or grade 1, 2 or 3 is designated at each school to receive professional development regarding dyslexia. Such professional development must include, without limitation, training in:

- (a) Methods to recognize indicators for dyslexia; and
- (b) The science related to teaching a pupil with dyslexia.

The professional development required pursuant to Subsection 2:

- (a) Must be provided by a learning strategist, if the principal has designated a licensed teacher to serve as a learning strategist; or
- (b) May be provided on the Internet or at another venue approved by the Department.

(AB341 Sec 13-2-3)

Section VII

Special Education and Dyslexia

Special education eligibility:

IDEA 2004 regulations related to specific learning disability (SLD) (34 C.F.R. §300.8(c)(10)(i)) define SLD as a disorder in one or more of the basic psychological processes involved in understanding or in using language, spoken or written, that may manifest itself in the imperfect ability to listen, think, speak, read, write, spell, or do mathematical calculations, including conditions such as perceptual disabilities, brain injury, minimal brain dysfunction, dyslexia, and developmental aphasia. IDEA 2004 regulations (34 §C.F.R. 300.309(a)(1)) specifically designate the following areas for the determination of SLD: oral expression, listening comprehension, written expression, basic reading skill, reading fluency skill, reading comprehension, mathematics calculation, and/or mathematics problem solving.

A student suspected of having dyslexia or related disorders who is unable to make adequate academic progress may be referred to special education for evaluation and possible identification as a child with a disability within the meaning of IDEA 2004.

It should be noted that a Multi Disciplinary Team (MDT) would make the decision as to whether or not an evaluation for special education was warranted and what assessments were needed based on the child's suspected disability, IDEA 2004 regulations related to assessment (34 C.F.R. §300.304(c)(4)) indicate that a student should be assessed in all areas related to the suspected disability.

Nevada law outlines the process for evaluating pupils suspected of having a disability and requiring special education programs and related services.

AB341 Sec 9-3. If the response to scientific, research-based intervention system of instruction determines that a pupil needs additional screening in order to determine whether the pupil has a specific learning disability, including, without limitation, dyslexia:

(a) The pupil must receive additional testing by a trained professional using a norm-referenced test; and

(b) The board of trustees of the school district or the governing body of the charter school, as applicable, shall perform a comprehensive evaluation for the pupil in addition to the required response to scientific, research-based intervention system of instruction.

Criteria and Program Guidelines for Children with Disabilities Ages 3-21, Part I Section I, there are three allowable methods for identifying a student as having a Specific Learning Disability:

1. Establishing a severe discrepancy between intellectual ability and achievement
2. Using a process based on a child's response to scientific, research-based Intervention
3. Using other alternative research-based procedures (such as Patterns of Strengths and Weaknesses)

Services for students with dyslexia who qualify for special education-

If an MDT finds that a student has a disability and requires special education programs and related services in order for the student to make meaningful educational progress, an Individualized Education Program shall be developed for the student.

The Individualized Education Program shall be developed in accordance with all State and Federal law including without limitation to:

AB341 Sec.11. When developing an individualized education program for a pupil with dyslexia in accordance with NRS 388.520, the pupil's individualized education program team shall consider, without limitation, the following instructional approaches:

- 1. Explicit, direct instruction that is systematic, sequential and cumulative and follows a logical plan of presenting the alphabetic principle that targets the specific needs of the pupil;*
- 2. Individualized instruction to meet the specific needs of the pupil in an appropriate setting that uses intensive, highly concentrated instruction methods and materials that maximize pupil engagement;*
- 3. Meaning-based instruction directed at purposeful reading and writing, with an emphasis on comprehension and composition; and*
- 4. Multisensory instruction that incorporates the simultaneous use of two or more sensory pathways during teacher presentations and pupil practice.*

Appendix A

Glossary

Accommodation – a change that helps a student overcome or work around a disability. For example, allowing a student who has trouble writing to give her answers orally is an example of an accommodation. The student is still expected to know the same material and answer the same questions as fully as the other students, but he doesn't have to write his answers to show that he knows the information.

Characteristics- strengths and weaknesses in the various components of literacy associated with dyslexia. The characteristics are included in the definition of dyslexia as poor decoding, poor word recognition, poor fluency, and poor spelling.

Comprehension – understanding the intended meaning of language.

Core Instruction – the curriculum and instructional practices that are provided to all students in the general education setting.

Decoding – to translate words, word parts, or nonwords into their corresponding pronunciation.

Diagnostic Assessment – assessments used to measure current skills and knowledge, often for the purpose of educational planning.

Differentiated Instruction – varying educational practices to meet the needs of different students.

Dyslexia – a specific learning disability characterized by difficulties with accurate and fluent word recognition, poor spelling and decoding abilities that typically result from the phonological component of language, and are often unexpected in relation to other cognitive abilities.

Elision – the ability to identify the remaining word when a specified sound is deleted.

Encoding – to translate spoken language into print.

Evaluation – procedures used to make judgments or appraisals.

Explicit, Direct Instruction - the overt teaching and modeling of the steps and processes needed to learn and apply new knowledge. Explicit, direct instruction targets the specific needs of the students without presuming prior skills or knowledge.

Fidelity - means the intervention is done as the author of the program intended.

Fluency – the ability to read the words in text effortlessly and efficiently (automaticity) with meaningful expression that enhances the meaning of the text (prosody).

Graphophonemic Knowledge - refers to the letter - sound plan of English, including knowledge of the relationship between letters and sounds.

Indicator - a sign that shows or suggests the condition of something. Indicators of dyslexia are the early warning signs that indicate a child might have dyslexia. Indicators of dyslexia may differ at different ages.

Individualized Instruction - instruction that is designed to meet the specific needs of the student in a small group setting. Individualized instruction is intensive and highly concentrated instruction that focuses on the student’s area(s) of primary difficulty and the instructional delivery necessary to assist students in accelerating their learning, maximizing student engagement in the process of learning.

Individuals with Disabilities Education Act (IDEA) – the law that outlines rights and regulations for students with disabilities in the U.S. who require special education.

Intervention – activities designed to improve or remediate performance in a given area.

Learning disabilities – a disorder in one or more of the basic psychological processes in understanding or using language, spoken or written, that may manifest itself in the imperfect ability to listen, think, speak, read, write, spell, or to do mathematical calculations.

Linguistic Instruction - instruction aimed toward improving student proficiency and fluency with the patterns of language so that words and sentences are carriers of meaning.

Meaning-based Instruction – instruction that is focused on purposeful reading and writing tasks with an emphasis on comprehension and composition.

Morphological Awareness – awareness of the semantically meaningful units and structure of words.

Multisensory Instruction – instruction that incorporates the simultaneous use of two or more sensory pathways (visual, auditory, kinesthetic, and tactile) during teacher presentations and student practice.

Norm-referenced Test – an assessment that provides an estimate of the student’s performance compared to other students in the population of the same age or grade.

Orthographic Knowledge – information in memory of how to represent spoken language in a written form.

Phonemic Awareness - enables a student to detect, segment, blend, and manipulate sounds in spoken language

Phonics – a systematic process for teaching sound-symbol relationships and their use in reading and spelling words.

Phonological Awareness – the ability to recognize and manipulate the sound system in spoken language; encompasses the entire continuum of skills related to the awareness of the phonological structure of language.

Progress Monitoring – efficient, frequent, dynamic assessment of targeted skills to examine student growth and examine effectiveness of instruction.

Research-based Instruction – instruction that is based on the findings of scientific research.

Response to Intervention – a multi-tiered decision-making process for providing effective instruction and intervention based on students’ performance and progress.

Sensory Impairment – a vision or hearing impairment, or a combination of both, that cannot be corrected to a degree that the student can receive educational benefit from print and/or auditory information.

Strategy-based Instruction – providing instruction in the step-by-step processes needed for students to independently complete complex tasks.

Structure of the English Language - English language structure consists of morphology (understanding the meaningful roots and affixes that make up words in the language), semantics (understanding how language carries meaning), syntax (understanding the conventions and rules for structuring meaningful sentences), and pragmatics (understanding how language conveys meaning in specific situations)

Systematic Instruction - sequential, cumulative instruction that follows a logical plan and progresses from easiest to most complex with careful pacing to ensure students successfully master each step in the process. Systematic instruction includes scaffolded support for accomplishing each learning step by breaking down complex skills into manageable learning steps and providing temporary supports to control the level of difficulty as students gain mastery.

Vocabulary – words understood and used when listening, speaking, reading, and writing.

Word Recognition - the ability of a reader to recognize written words correctly and effortlessly.

Appendix B

References

- Allington, R. L. (1984). Content coverage and contextual reading in reading groups. *Journal of Reading Behavior, 16*, 85-96.
- Anderson, R. C., Wilson, P. T., & Fielding, L. G. (1988). Growth in reading and how children spend their time outside of school. *Reading Research Quarterly, 23*, 285-303.
- Catts, H., & Kahmi, A. (2005) (Eds.) *The connections between language and reading disabilities*. Mahway, NJ: Erlbaum.
- Cunningham, A.E. & Stanovich, K.E. (1998). What reading does for the mind. *American Educator, 22*, 8-15.
- Ehri, L.C. (2002). Phases of acquisition in learning to read words and implications for teaching. In R. Stainthorp and P. Tomlinson (Eds.) *Learning and teaching reading*. London: British Journal of Educational Psychology Monograph Series II.
- Fletcher, J.M., Denton, C., & Francis, D.J. (2005). Validity of alternative approaches for the identification of LD: Operationalizing unexpected underachievement. *Journal of Learning Disabilities, 38*, 545-552.
- Fletcher, J. M., Lyon, G. R., Fuchs, L. S., & Barnes, M. A. (2006). *Learning disabilities*. New York, NY: Guilford.
- Gersten, R., Compton, D., Connor, C.M., Dimino, J., Santoro, L., Linan-Thompson, S., and Tilly, W.D. (2008). *Assisting students struggling with reading: Response to Intervention and multi-tier intervention for reading in the primary grades. A practice guide*. (NCEE 2009-4045). Washington, DC: National Center for Education Evaluation and Regional Assistance, Institute of Education Sciences, U.S. Department of Education.
- Gibbs, Denise P., (2004). *Leading the Dyslexia Challenge: An Action Plan for Schoolwide Identification and Intervention*. Horsham, PA: LRP Publications.
- Good, R.H., Kaminski, R.A. (Eds.). (2002). *Dynamic Indicators of Early Basic Literacy Skills-Sixth Edition*. Eugene, OR: Institute for Development of Educational Achievement.
- Good, R.H., Kaminski, R.A., Cummings, K., Dufour-Martel, C., Peterson, K., Powell-Smith, K., et al. (2011). *DIBELS Next*. Longmont, CO: Sopris West Educational Services.
- International Reading Association (2010). *Response to Intervention: Guiding Principles for Educators*. Newark, DE: Author.
- Kolenovsky, Gladys. "School-Based Identification of Dyslexia in Texas: The Very Basics." Texas Scottish Rite Hospital for Children. Dallas, Texas. 1 July 2014.

- Liberman, I.Y., Shankweiler, D., & Liberman, A.M. (1989). The alphabetic principle and learning to read. In Shankweiler, D. & Liberman, I.Y. (Eds.), *Phonology and reading disability: Solving the reading puzzle* (pp.1-33). Ann Arbor, MI: U. of Michigan Press.
- Liederman, J., Kantrowitz, L., & Flannery, K. (2005). Male vulnerability to reading disability is not likely to be a myth: A call for new data. *Journal of Learning Disabilities*, 38, 109–129.
- National Center on Response to Intervention (March 2010). *Essential Components of RTI – A Closer Look at Response to Intervention*. Washington DC: U.S. Department of Education, Office of Special Education Programs, National Center on Response to Intervention.
- Quinn, J. M., & Wagner, R. K. (in press). Gender differences in reading impairment and in the identification of impaired readers: Results from a large-scale study of at-risk readers. *Journal of Learning Disabilities*.
Psychological Bulletin, 131, 592-617.
- RAND. (2002). *Reading for understanding: Toward an R&D program in reading comprehension*. Santa Monica, CA: Author.
- Rayner, K., Foorman, B.R., Perfetti, C.A., Pesetsky, D., & Seidenberg, M.S. 2001. How psychological science informs the teaching of reading. *Psychological Science in the Public Interest*, 2: 31-73.
- Rutter, M., Caspi, A., Fergusson, D., Horwood, J. L., Goodman, R., et al. (2004). Sex differences in developmental reading disability: New findings from four epidemiological studies. *Journal of the American Medical Association*, 291, 2007–2012.
- Share, D.L., & Stanovich, K.E. (1995). Cognitive processes in early reading development: A model of acquisition and individual differences. *Issues in Education: Contributions from Educational Psychology*, 1, 1-35.
- Shaywitz, S. (2003). *Overcoming Dyslexia: A New and Complete Science-Based Program for Reading Problems at Any Level*. New York: Alfred A. Knopf.
- Snow, C.E., Burns, M.S. & Griffin, P. (1998). *Preventing reading difficulties in young children*. Washington, DC: National Academy Press.
- Torgesen, J. K. (2000). Individual differences in response to early interventions in reading: The lingering problem of treatment resisters. *Learning Disabilities Research & Practice*, 15(1), 55–64.
- Wagner, R.K., & Torgesen, J.K. (1987). The nature of phonological processing

Appendix C

Definition of Dyslexia

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 IDA: November 2002

Characteristics of Dyslexia

Underlying Cause:

- Deficit in the phonological processing (Phonological awareness, phonological memory, and/or rapid naming)

Characteristics:

- Difficulty reading real words in isolation
- Difficulty accurately decoding nonsense or unfamiliar words
- Poor reading fluency (rate, accuracy, labored)
- Poor spelling

Outcomes:

- Difficulty with reading comprehension
- Reduced reading experience that limits vocabulary and background knowledge

Appendix D

Accommodations

Listed below some accommodations to be considered for a student exhibiting the characteristics of dyslexia. Specific accommodations should be selected based on individual student needs.

Reading

- Allow audio books and/or text-to-speech software
- Utilize outlines, summaries
- Preview questions and vocabulary
- Allow shared reading or buddy reading

Writing

- Grade for content rather than spelling
- Allow students to dictate work to an adult
- Substitute alternative projects for written reports
- Utilize speech-to-text software
- Reduce written work
- Minimize copying
- Accept oral responses, reports, and presentations

Testing

- Provide extra time
- Review directions orally
- Read tests orally
- Allow dictated responses

Homework

- Reduce reading and writing requirements
- Limit time spent on homework
- Provide extra time

Instruction

- Break tasks into small steps
- Give directions in small steps
- Give examples and model behavior
- Emphasize daily review
- Provide copies of lecture notes

Classroom

- Post schedules and maintain routines
- Chart assignments on a calendar
- Use color-coding to organize materials and information
- Incorporate multisensory activities
- Coordinate preferential seating
- Avoid requiring student to read aloud in front of a group

Appendix E

Programs, Training, and Resources

This section is to be used as a resource. It provides information to assist in research for school districts, public schools, teachers, and parents. The Authors of this guide are in no way endorsing any of the programs, trainings, or resources listed here as good, bad, or “approved”. This is not an all inclusive list.

<http://www.leadabcd.com/description.html>

Barton Reading and Spelling

<http://www.bartonreading.com>

Connections O-G in 3D Reading Intervention

<http://applegroupdyslexia.com>

Language! The Comprehensive Literacy Curriculum

<http://www.voyagersopris.com/curriculum/subject/literacy/language-4th-edition>

Phonics First

<http://rlac.com/phonics-first>

Take Flight: A Comprehensive Intervention for Students with Dyslexia

<http://www.tsrhc.org/dyslexia-take-flight>

The Sondag System

<http://www.winsorlearning.com>

Wilson Foundations

http://www.wilsonlanguage.com/FS_PROGRAM_FUN.htm

Wilson Reading Systems http://www.wilsonlanguage.com/FS_PROGRAM_WRS.htm