

Identifying Dual Sensory Loss in Students With the Most Significant Cognitive Disabilities

This brief, co-produced by the National Center on Deaf-Blindness (NCDB) and Accessible Teaching, Learning, and Assessment Systems (ATLAS), provides important information about students with dual sensory loss who also have significant cognitive disabilities, as well as recommendations for identification and implications for instruction. The information is drawn from a more extensive report titled *Students with Significant Cognitive Disabilities and Dual Sensory Loss*.

KEY TAKEAWAYS

- Dual sensory loss can be difficult to identify in students with the most significant cognitive disabilities.
- Survey data on nearly 100,000 students with the most significant cognitive disabilities indicated that some have known dual sensory loss, and some have suspected dual sensory loss.
- Students with known dual sensory loss tend to have stronger communication and academic skills than those with suspected dual sensory loss.
- It is critical to identify dual sensory loss in this population as it is an important first step to providing essential services to address students' sensory needs so they have opportunities to make progress in the general education curriculum.

DATA SOURCES AND METHODS

- The First Contact (FC) survey is completed annually. It provides teacher-reported characteristics and skills of students with significant cognitive disabilities who are enrolled to take the Dynamic Learning Maps® (DLM) alternate assessments.
- This brief is based on FC Survey data from more than 100,000 students in grade 3 through high school who were enrolled in DLM assessments in 17 states during the 2017-2018 school year.

IDEA REGULATIONS

- The Individuals with Disabilities Education Act (IDEA) classifies a student with deaf-blindness as having both “hearing and visual impairments, the combination of which causes such severe communication and other developmental and educational needs that they cannot be accommodated in special education programs solely for children with deafness or children with blindness” (Individuals with Disabilities Education Act, 2006).
- According to IDEA reporting requirements, the primary disability classification for students who have deaf-blindness and another disability should be multiple disabilities.
- A multiple disabilities classification does not necessarily indicate that the student's IEP team is aware of any dual sensory impairment.

KNOWN OR SUSPECTED DUAL SENSORY LOSS

Using teachers' FC responses about students' sensory function, rather than disability classification, the report identified additional students who have known or suspected dual sensory loss.

- Known dual sensory loss ($n = 649$) was defined as students who are deaf or hard of hearing and blind or low vision.
- Suspected dual sensory loss ($n = 870$) was defined as students with questionable vision who are deaf or hard of hearing, students who are blind or have low vision and questionable hearing, or students with both questionable vision and hearing.

Table 1. Relationship Between Teacher-Reported Hearing and Vision Loss

HEARING	VISION				TOTAL
	No vision loss suspected	Normal with correction	Blind or low vision	Questionable	
No known hearing loss	63,098	23,196	3,817	2,325	92,436
Deaf or hard of hearing	1,341	1,341	649	170	3,501
Questionable hearing but inconclusive testing	605	523	280	420	1,828
TOTAL	65,044	25,060	4,746	2,915	97,765

RECOMMENDATIONS FOR IDENTIFICATION

- Traditional medical evaluations may not identify sensory loss if students lack the skills to participate in the evaluation process.
- Some caregivers may mistakenly attribute behaviors to intellectual disabilities rather than to sensory loss (Kiani & Miller, 2010).
- Providing teachers with tools and training could assist them in identifying signs of sensory loss. They could then refer students for expert evaluation. These evaluations should allow for multiple response options and take into account information from interviews with those familiar with the student.
- If dual sensory loss is recognized, IEP teams must be willing to revise the student's initial disability classification.
- States with access to statewide data similar to what is collected for the FC survey could analyze it to identify students with known or suspected dual sensory loss and inform identification processes.

PREVALENCE RATES

Prevalence rates indicate there may be unrecognized dual sensory loss among students with the most significant cognitive disabilities.

Table 2. Range of Prevalence Rates per State (N =100,149)

Students with significant cognitive disabilities and . . .	Overall	Lowest Rate	Highest Rate
Deaf-blindness IDEA classification	1.11	0.0	3.45*
Known dual sensory loss	6.43	4.09	11.28*
Suspected dual sensory loss	8.63	2.62	13.93

**Excludes one extreme outlier state: 13.98 deaf-blind classification, 21.74 known dual sensory loss.*

- States with a higher prevalence of known dual sensory loss tend to have a higher prevalence of suspected dual sensory loss. Neither dual sensory loss category was strongly related to the state's deaf-blindness prevalence rate.
- Primary disability classifications tend to be different for students with known versus suspected dual sensory loss.

Table 3. Primary IDEA Classification Among Students with Known or Suspected Dual Sensory Loss

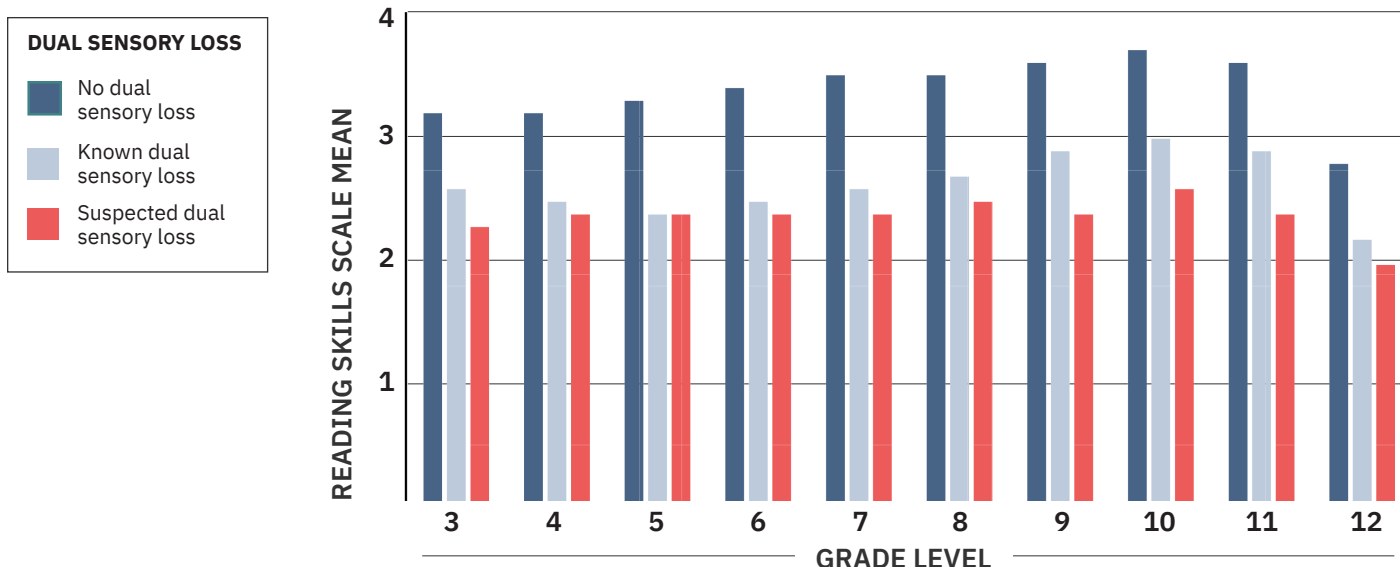
Primary IDEA Classification	Known Dual Sensory Loss		Suspected Dual Sensory Loss	
	n	%	n	%
Autism	11	1.7	53	6.1
Deaf-blindness	78	12	6	0.7
Intellectual disability	69	10.6	129	14.8
Multiple disabilities	404	62.2	549	63.1
Other	87	13.4	133	15.3

IMPLICATIONS FOR ACADEMIC INSTRUCTION

Students with known and suspected dual sensory loss have differences in their communication and academic skills.

- 92% of students with known dual sensory loss use at least one type of assistive technology (AT), compared with 78% with suspected dual sensory loss.
- More students with known dual sensory loss (34%) than suspected dual sensory loss (26%) use speech to communicate.
- 80% of the 27% of students with known dual sensory loss who do not communicate using speech, sign, or augmentative and alternative communication (AAC) demonstrated only preintentional communication behaviors. In contrast, 86% of the 36% of students with suspected dual sensory loss who do not communicate using speech, sign, or AAC demonstrated only preintentional communication behaviors.
- Based on teacher ratings of students' academic skills, students with known dual sensory loss have more consistent skills on average than those with suspected dual sensory loss. The gap increases in higher grades. Both groups have lower academic skills than their peers without dual sensory loss. The figure below shows this pattern for reading. There are similar patterns in mathematics and science.

Chart: Dual Sensory Loss Grades 3–12 Reading Skills



Students with known dual sensory loss may be more likely to receive services and supports that address their sensory needs during instruction. Data on service delivery were not included in this study.

REFERENCES

Kiani, R., & Miller, H. (2010). Sensory impairment and intellectual disability. *Advances in Psychiatric Treatment*, 16(3), 228–235.

Individuals with Disabilities Education Act, 34 C.F.R. § 300.8 (2006). <https://www.govinfo.gov/content/pkg/FR-2006-08-14/pdf/06-6656.pdf>

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