



Scaling Inclusive Instructional Systems for Low-Incidence Disabilities in Underserved U.S. Elementary Schools

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Executive Summary

This white paper outlines a scalable model for delivering high-quality instructional systems to students with low-incidence disabilities in underserved U.S. elementary schools. These students, who may have visual, auditory, multiple, or severe cognitive impairments, are entitled to services under the Individuals with Disabilities Education Act (IDEA) but are routinely underserved due to national shortages of specialized personnel, misalignment of curriculum, and inadequate implementation of Individualized Education Programs (IEPs).

Our central thesis is that this challenge cannot be resolved by individual school districts acting alone. Instead, we propose a regional, scalable framework that includes: (1) curriculum alignment to general education standards; (2) IEP fidelity tools; (3) Orton-Gillingham-based literacy interventions; and (4) interoperable data systems for compliance and progress tracking. These implementation tools address the systemic gaps that local hiring cannot remedy and offer broad public value across school districts and communities¹.

Background

Low-incidence disabilities affect fewer than 1% of the school-age population. Examples include visual impairments, hearing impairments, deaf-blindness, significant cognitive disabilities, and multiple disabilities². Students with such needs require intensive support not typically available in general education classrooms. However, the IDEA mandates that all children with disabilities receive a Free Appropriate Public Education (FAPE) in the least restrictive environment³.

Many school districts, especially in rural or high-poverty areas, lack certified Teachers of the Visually Impaired (TVIs), Teachers of the Deaf (TODs), or specialists in assistive technology. Nationally, more than 48 states report persistent shortages of special education personnel⁴. These shortages have contributed to systemic noncompliance with IDEA's service mandates, depriving students of critical learning opportunities⁵. Service shortfalls disproportionately affect students from marginalized communities, exacerbating existing inequities in educational outcomes.

The situation is worsened by chronic underfunding. Congress has historically failed to meet its commitment to fund 40% of the additional cost of special education under IDEA. As of FY2025, federal contributions remain below 12%, leaving a shortfall of more than \$38 billion⁶. This underfunding shifts the burden to state and local governments, many of which lack the fiscal capacity to sustain full-spectrum special education services. The result is a fragmented and inequitable patchwork of services nationwide.



Moreover, many educators and administrators are not adequately trained to deliver evidence-based instruction or comply with the technical demands of the IEP process for students with complex needs. As a result, students with low-incidence disabilities often experience high rates of exclusion from general education settings, limited access to the general curriculum, and poor academic achievement⁷.

Framework and Implementation Model

To address these issues, we propose the Scaled Inclusive Instructional System (SIIS), built on four interdependent components designed to optimize service delivery:

1. Curriculum Alignment

Students with low-incidence disabilities must have access to the general education curriculum as required under IDEA. The SIIS model emphasizes aligning instructional content with grade-level standards while allowing for appropriate modifications through alternate achievement standards⁸. This involves a tiered content design that ensures students with disabilities participate meaningfully in classroom instruction. Teachers must be trained to use Universal Design for Learning (UDL) principles to differentiate content and assessments. Curriculum alignment is supported by pre-adapted resources, visual schedules, tactile materials, and co-planning frameworks involving both general and special educators.

2. IEP Fidelity Monitoring

Monitoring the delivery of IEP services is essential for compliance and educational impact. The SIIS model employs digital tools that log the frequency, duration, and modality of services delivered. These logs are cross-referenced with IEP service mandates to identify discrepancies in real time. School administrators receive automatic alerts when service gaps emerge, enabling timely corrective action. Moreover, the fidelity system tracks student progress against IEP goals, using visual dashboards to support data-driven instruction. This transparency builds accountability and empowers stakeholders⁹.

3. Orton-Gillingham-Based Literacy Interventions

Many students with low-incidence disabilities have comorbid reading difficulties that require intensive, structured intervention. The Orton-Gillingham (OG) approach, a multisensory, phonics-based instructional method, is especially effective for students with dyslexia or cognitive delays. OG has been shown to yield statistically significant improvements in phonemic awareness, decoding, and reading fluency¹⁰. Under the SIIS model, selected staff undergo OG certification and implement interventions as part of a multitiered system of support (MTSS). Services are delivered in small-group or one-on-one formats, with progress monitoring embedded into each instructional cycle.



4. **Interoperable Data Systems**

A centralized data management platform anchors the SIIS framework. This platform integrates IEP service logs, academic performance data, attendance, behavior incidents, and parent communications. Stakeholders can access tailored reports to monitor compliance and student outcomes. These data systems also support resource allocation, identifying schools or students requiring additional supports. Through secure interoperability, district consortia can share personnel schedules, caseload information, and training resources. Interoperable systems thus enhance both operational efficiency and educational equity¹¹.

Policy Recommendations

1. **Regional Service Consortia**

States should incentivize or mandate regional cooperation for serving students with low-incidence disabilities. Models such as California's Special Education Local Plan Areas (SELPAs) demonstrate the feasibility of shared service delivery for rare disabilities across multiple LEAs¹². State policies must support flexible staffing models, joint funding streams, and cooperative personnel development initiatives. Regional hubs could house specialists who provide itinerant or virtual services to member districts. Such configurations expand access while optimizing cost-efficiency.

2. **Federal Investment and Incentives**

Congress should pass the IDEA Full Funding Act to meet the 40% federal cost commitment and reduce inequities across states. Additional appropriations should support IDEA Part D personnel preparation programs that train specialists in low-incidence disabilities. Federal grants can seed regional consortium development, assistive technology lending libraries, and innovation in inclusive curriculum design. Competitive awards should prioritize partnerships that demonstrate cross-district collaboration and measurable impact¹³.

3. **Inclusive Instructional Leadership Development**

Districts and states must expand training for administrators and instructional leaders to support inclusive practices. This includes policy alignment across ESSA and IDEA, coaching on curriculum adaptations, and workshops on behavioral inclusion strategies. Leadership development programs must emphasize fidelity monitoring, UDL implementation, and culturally responsive engagement of families. Leadership certification standards should include competencies in managing inclusive systems for low-incidence disabilities¹⁴.

4. **Assistive Technology and AEM Systems**



Schools must develop infrastructure for the timely provision of Accessible Educational Materials (AEM), such as braille, audio texts, and AAC devices. SEAs should maintain AEM repositories and provide technical assistance to LEAs. Funding should support both procurement and training to ensure devices are fully utilized. Integration of assistive technology specialists within consortium teams will enhance system responsiveness and student independence¹⁵.

5. Continuous Fidelity and Equity Audits

State monitoring systems must go beyond compliance checklists and evaluate IEP fidelity and inclusion equity. Audits should analyze data on service delivery gaps, missed sessions, segregated placements, and disproportionate outcomes. Findings must inform corrective action plans with technical assistance support. Public dashboards, redacted for confidentiality, should enhance transparency and foster stakeholder engagement¹⁶.

Conclusion

Scaling inclusive instructional systems for low-incidence disabilities represents a public policy imperative grounded in civil rights, educational equity, and fiscal stewardship. The SIIS model responds to the limitations of isolated district efforts and proposes an evidence-based, collaborative, and sustainable solution. Through investment in shared infrastructure, data-driven practices, and instructional rigor, districts can close service gaps and fulfill the promise of IDEA for all learners.

About Zenith G. Rosales:



Zenith G. Rosales is a licensed special education teacher with over a decade of classroom and leadership experience supporting students with diverse learning needs across the Philippines and the United States. Currently serving as a low-incidence STEP program teacher at Whittier Elementary School in Waukegan, Illinois, she holds a Master's in Special Education and is pursuing her Doctorate in Developmental Education. Rosales brings extensive expertise in inclusive instructional design, IEP fidelity, and culturally responsive teaching, with a strong record of innovation and student advocacy. Her background includes national coaching awards, curriculum leadership, and consultancy work focused on scaling equity-centered instructional systems for students with complex disabilities.

Endnotes

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