Chan Zuckerberg Initiative | Atlanta Speech School

Founded in

1938

Number of Schools, Location(s)

4 schools; one clinic with four diagnostic and therapeutic services, and a professional learning institute, the Rollins Center for Language & Literacy in Atlanta, GA

Number of Students

391 students in 4 schools, 1,000 clients served by the clinic, and tens of thousands of infants and children impacted by the Speech School's work in the metro area and beyond, due to the Rollins Center for Language & Literacy and its free online Cox Campus

Number of Teachers / Teacher Retention

210 staff across all programs
92% teacher retention

Sector

Private

Grades Served

Infants through 6th grade across three preschools
One elementary school for children with dyslexia.

Student Demographics

The Katherine Hamm Center serves children who are deaf or hard of hearing. Students of Stepping Stones have diagnosed speech and language delays. Kenan Preschool students are traditional learners with typical auditory development, and Kenan provides an environment in which the students of the other preschools are able to integrate and prepare for mainstream education. The elementary-aged students of the Wardlaw School have been diagnosed with dyslexia.

The Speech School has no forms where the collection of demographic data is a mandatory field. Demographics are self-reported by parents and in many cases not completed — in which case, collected as "other." Lunch is included with tuition.

Hamm: 35% Black/African American, 35% Caucasian, 17% Hispanic (all dual-language learners), 12% East Asian or other
Kenan: 1% African American, 12% Asian, 76% White, 11% Other
Stepping Stones: 7% Asian, 77% White, and 16% Other
Wardlaw: 5% African American, 3% Asian, 87% White, 5% Hispanic

Teacher Demographics

27% African American
4% Hispanic
64% White
5% other

Anchoring to Established Cognitive Developmental & Educational Theories

Piaget's Theory of Cognitive Development — Constructivism[1]

Researcher: Jean Piaget

Theory's Key Tenets: Children learn as an artifact of factors both internal and external to the child. Children learn best by doing and through engaging in their environment and with the adults and peers around them.

Universal Grammar Theory [2]

Researcher: Noam Chomsky

Theory's Key Tenets: All language is hard-wired in the brain to have certain universal features, given the right environmental and biological inputs in the child. When children experience extreme sensory or environmental stimulation, language may be delayed or not develop as expected.

Social Learning Theory / Social Cognitive Theory [3]

Researcher: Albert Bandura

Theory's Key Tenets: Children learn and develop new knowledge and skills through observation and modeling. Individual, Proximal, and Collective Agency serve as mechanisms for shaping children's overall growth and life outcomes.

Sociocultural Theory [4,5]

Researcher: Lev Vygotsky

Theory's Key Tenets: Children learn through hands-on experiences. Everyone in the child's environment and the overall culture and society are responsible for developing higher order cognitive functions. Learning is inherently a social act. Adults facilitate children's knowledge development through scaffolding and the Zone of Proximal Development — the space between a child's prior background knowledge and what they can do on their own, and the new knowledge, understandings, or skills that they need support mastering.

Ecological Systems Theory [6]

Researcher: Urie Bronfenbrenner

Theory's Key Tenets: Children learn through both internal and external factors by engaging in several environmental or ecological systems:

- Microsystem *(e.g. family, caregivers, school)*

- Mesosystem *(refers to relationships between those within the child's microsystem, such as parent-school partnerships)*

- Exosystem *(refers to larger social systems that impact the child's development, such as community-based resources or parent workplace environments that may cause stress on parents that lead to stress for children)*

- Macrosystem *(refers to cultural values, customs and laws)*

- Chronosystem *(refers to dimensions of time and the interplay between time and a child's external life changes and circumstances as well as the child's internal development and identity)*

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"During the Atlanta Speech School's 81-year history, the organization has emerged as a regional and national leader in teaching and learning, early intervention and assessment in language and literacy, implementation science, and professional learning at scale. The Atlanta Speech School ensures that the nation's leading research and best practices on early childhood education, language, literacy, early intervention, and assessment are brought to practice throughout all arms of the organization and through all regional and national partners."

— Dr. Ami Klin
Director of the Marcus Autism Center, a subsidiary of Children's Healthcare of Atlanta; Director of the Division of Autism and Related Developmental Disabilities in the Department of Pediatrics at Emory University School of Medicine

[1] Jean Piaget, "Piaget's Theory," in: Bärbel Inhelder, Harold H. Chipman, and Charles Zwingmann, eds., *Piaget and His School* (New York: Springer-Verlag Berlin Heidelberg, Springer Study Edition, 1976).
[2] Noam Chomsky, *Aspects of the Theory of Syntax* (Cambridge, Mass.: MIT Press, 1965).
[3] Albert Bandura, "Social Learning Theory" (New York: General Learning Corporation, 1971). Archived from the original (PDF) on October 24, 2013. Retrieved December 25, 2013.
[4] Lev Vygotsky, "The Development of Higher Psychological Functions," Russian Social Science Review 18, no. 3 (1977): 38.
[5] James P. Lantolf and Aneta Pavlenko, "Sociocultural Theory and Second Language Acquisition," *Annual Review of Applied Linguistics* 15 (1995): 108–124. doi:10.1017/S0267190500002646.

[6] Urie Bronfenbrenner, "Ecological Systems Theory," in Ross Vasta, ed., *Six Theories of Child Development: Revised Formulations and Current Issues* (London, England: Jessica Kingsley Publishers, 1992), 187–249.

Introduction

The Atlanta Speech School (Speech School, the School) has evolved over its 82-year history to become one of the nation's most comprehensive centers for language and literacy. It has achieved this status through its purpose to serve as the educational equivalent of a teaching hospital — its research-to-practice approach is carried from each child in its on-campus classrooms to every child outside the physical walls.

Through four academic programs, the School serves 391 students. The Wardlaw School (Wardlaw), serving 192 students K-6th grade with dyslexia, is the largest academic program.

Wardlaw focuses on building complex language, literacy, and social skills for students so they can move to traditional academic settings after about three years. The goal is to reach each child with curriculum rooted deeply in language and literacy, using its unique integrated intervention model that addresses each child's specific learning needs. The model is informed by the researchers with whom it works — including Maryanne Wolf, whose research defines the Speech School's foundational framework, integrated across all programs and schools, "construction of the deep reading brain."

The preschools include the Katherine Hamm Center (Hamm Center, Hamm), evolved from the Speech School's original school, founded over 80 years ago to teach language and literacy skills to children who are deaf and hard of hearing; the Anne and Jim Kenan Preschool (Kenan), an academic preschool for typical learners; and Stepping Stones, a preschool for children experiencing speech and language delays that have been detected early. Kenan provides the environment in which children of Hamm and Stepping Stones are able to integrate with children who have typical hearing, as well as typical speech and language development.
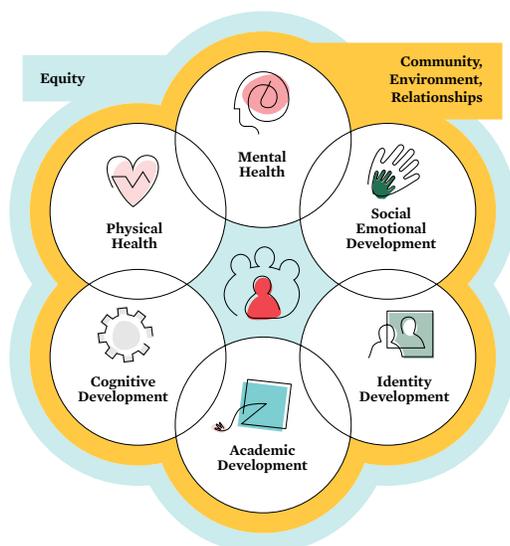
Historical Milestones at Atlanta Speech School

- Opened the first audiology clinic south of John Hopkins University
- Initiated and assisted in developing the first speech therapy program for Atlanta Public Schools
- Assisted Fulton County Schools with the development of a speech therapy program
- Initiated a master's level teacher training program in communicative disorders with Emory University in 1947 (providing significant funding, personnel, and practice site until 1967)
- Began the forerunner of a leaning disabilities program in the mid 1950s (Language Department)
- In the late 1970s, the School shifted the focus of the Language and Learning Disabilities Department from severe problems to mild/moderate language and learning disabilities after federal legislation mandated special education services for children with disabilitiies in order to provide services to unserved children at a young age
- Began dispensing hearing aids in the Audiology Clinic for the convenience of our clients
- Established the first home training program for children who are born deaf in the country funded as a demonstration project by the Department of Health, Education, and Welfare

In addition, the School serves another 1,000 individuals of all ages through clinical programs and tens of thousands through the School's professional development institute, the Rollins Center for Language & Literacy (the Rollins Center, Rollins). The common purpose of all schools and programs of the Speech School is to intentionally build the cognition, language development and skills to ensure that every young learner has the foundation that allows reading and academic success.

Throughout its history, the School has never turned away a student because of the family's lack of financial means. The School's 15-year-old Rollins Center's singular focus is to break the cycle of illiteracy for children whose families have experienced generational lack of access (or been denied access) to educational opportunity, who live in areas far beyond the physical campus. This acts upon the truth spoken over 150 years ago by Frederick Douglass: "Once you learn to read, you will be forever free."

The School maintains that action is demanded when over the past 30 years the nation's leading experts in early brain development and language and literacy acquisition have determined that relationships, engagement, and instruction between adults and children are required from the last trimester of pregnancy through age 8 for the construction of their reading brain. This public health and educational imperative is further compelled when the National Assessment of Educational Progress (NAEP) and other data make clear that our nation's illiteracy epidemic is

Comprehensive Child Development

imposing its life-stunting risks with alarming and consistent dis-proportionality based on children's ZIP code, race, and ethnicity.

The School achieves this broader impact by ensuring the latest scientific research is translated with fidelity into practice and then intentionally transferred to others outside the physical campus via the Rollins Center and its free online learning platform, the Cox Campus. The School's work has long been steeped in the science of language, literacy, and human development; even its focus on early education reflects research that the majority of language and literacy formation must happen before age 8, at which time the brain becomes less plastic.[7] After third grade, academic structure is such that children move from learning to read to reading to learn. Accordingly, it is highly likely that a child who is not reading at or above grade level by the end of third grade will never catch up — which has implications for life.

The School's programs draw from the latest research and benefit from academic partnerships with leading researchers. In addition, lead instructional and clinical staff hold advanced degrees in their specific fields and the programs hire staff from a range of specialties (including special education, speech and language pathology, and occupational therapy).

The professional institute of the School, The Rollins Center, trains and coaches public health providers and early child-hood and elementary teachers across Georgia and well beyond. Its 36-person staff synthesize the nation's leading research to deliver training to break the cycle of illiteracy and resulting poverty in which hundreds of thousands of families in Georgia — and tens of millions across the United States — are trapped. Georgia, through the Campaign for Grade Level Reading, is working to have every child on the path to reading on grade level by the end of 2020. Rollins works in partnership with more than 100 public and private agencies and philan-thropies to support Georgia's 2020 goal.

To take its work to scale, through the support of Anne Cox Chambers and the James M. Cox Foundation, the Joseph B. Whitehead Foundation, the Zeist Foundation, the Stra-nahan Foundation, the Hearst Foundation, and others, the Rollins Center developed the Cox Campus, a free, universally accessible online learning community designed to provide a platform to translate Rollins' highly successful live model (delivered to approximately 1,000 teachers of 9,000 children) to an equally effective digital format.

Currently, more than 83,000 members from all 50 states and 42 other countries, who work with hundreds of thousands of children, are active on the Cox Campus. Rollins provides training for all Metro Atlanta YMCA and Sheltering Arms' early learning sites. These teacher-and-child interactions are at the core of the Cox Campus birth-to-age-5 courses. In the

late 1970s, the School shifted the focus of the Language and Learning Disabilities Department from severe problems to mild/moderate language and learning disabilities after federal legislation mandated special education services for children with disabilitiies in order to provide services to unserved chil-dren at a young age The video The Promise provides a window into this work, and our Every Opportunity Video has garnered more than 1 million social media views.

Programs:

Katherine Hamm Center

A listening, spoken language, and literacy program for children who are deaf or hard of hearing and their families. In addi-tion to instruction, Hamm offers the crucial early audiological intervention programs that children birth through age 6 with assistive listening devices need in order to develop listening, language, and literacy skill. Preschool children spend time each day with typically hearing children from other programs.

Anne and Jim Kenan Preschool

A preschool about "much more than learning letters, shapes, numbers and colors, [Kenan] applies an academic curriculum focused on language and literacy that incorporates research on how young children best develop complex vocabulary, critical thinking skills, world knowledge, and empathy for others." The children of Kenan generally have typical hearing and spend some time each day alongside children who are deaf and hard of hearing, modeling typical behavior for their peers.

Stepping Stones

A therapeutic preschool for children with speech and/or lan-guage delays that addresses those delays by integrating both therapy and education throughout its curriculum to maximize each child's growth and development. Stepping Stones infuses language development and remediation into every aspect of its program. Children develop intellectually, socially, and emotionally as weaknesses in language development, speech articulation, fine motor development, or sensory processing are addressed.

Wardlaw School

An elementary school that provides children with dyslexia and other language-based learning disabilities a solid founda-tion in reading and that works to build the complex language and literacy skills needed to excel in future traditional academic settings.

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[7] C. A.Nelson, Harvard Center on the Developing Child, 2000.

Rollins Center for Language and Literacy and Rollins' online presence, the Cox Campus

Onsite and online professional development program partners to bring the Atlanta Speech School's expertise in language and literacy to teachers, child care providers, health care professionals, and families of children birth to third grade, with a particular focus on the adults associated with children who have experienced generational lack of access to educational opportunities and have the greatest risk of illiteracy (including Atlanta Public Schools, Sheltering Arms, the City of Marietta, and Grady Hospital, as featured in this case study). The program synthesizes the research on how to build a child's language, vocabulary, critical thinking skills, and comprehension, and offers ongoing mentoring and coaching to educators.

Defining and Measuring Success

Definition of student success. Atlanta Speech School's definition of success is for each child to "acquire the language and literacy abilities essential for deciding their own future and making the greatest possible impact on the lives of others." The organization believes that language and literacy are the primary keys to the all-too-often locked gates of equity, opportunity, and access in our country, as literacy is a critical life skill that determines children's future in school and life.[8]

Current and desired ways of measuring success across domains. Data inform everything at Atlanta Speech School, with teachers steadily conducting assessments throughout the school year to identify student needs and track student progress. As one teacher shared, "We are so diagnostic. A student will get exactly what they need."

The School is committed to developing means to accurately measure the depth and breadth of what it's doing to build foundations for literacy. As Yale researcher and longtime Atlanta Speech School partner Walter Gilliam often articulates, "We don't measure what we value, we value what we measure. Creating new measurement systems can change reality if those measures are taken up." The school illustrates outcomes by

pointing to **lifelong success and satisfaction of alumni** — many of whom have defied early health care workers or teachers at other schools who predicted that their learning disabilities or their being deaf or hard of hearing would limit their options.

To illustrate their commitment to "measuring what matters" in a scalable way so that every child can benefit from the sort of directed individual instruction from which Speech School students benefit, the School is involved in legislation in the state of Georgia to provide language and literacy endorsement of preschools that are able to verify language and literacy progress through formative testing measures (this would then de facto apply to Rollins' work).

Academic success. With a consistent focus on individualized instruction (across all programs on campus), the Speech School leverages a range of assessments to measure individual language and literacy skills. Its outcomes are impressive and far-reaching:

- Students experience measurable academic development and are able to progress, succeed, and excel in mainstream schools, as summarized by each school's 2017-18 outcome report: Hamm, Kenan, Stepping Stones, and Wardlaw.

- Students at the Wardlaw School who receive a Georgia Special Needs Scholarship to attend Atlanta Speech School from a traditional public school were successfully remediated within an average of three years; most experience progress of more than one year over the course of the academic year.[9]

- Via the Rollins Center, Atlanta Speech School has directly supported educators across various public school settings, providing capacity to educators who in turn develop students' language and literacy skills. Atlanta Speech School points to the success of Drew Charter School, where students demonstrated achievement and growth in literacy and language skills. Additionally, children in partner district schools in Crisp County, Emily Lembeck Early Learning Center in Marietta, and Atlanta Public Schools have received ongoing progress monitoring in reading and language skills during fall, winter, and spring using tools such as the Words Their Way Spelling Inventory, the Developmental Reading Assessment (DRA), Really Great Reading Diagnostic Surveys, and more. Children have experienced measurable growth, as leaders and teachers were provided with professional learning and support around utilizing these data to monitor student learning and growth, as well as to inform future instructional efforts and professional learning foci for all staff.

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[8] Louisa C. Moats, *Teaching Reading Is Rocket Science* (Washington, DC: American Federation of Teachers, 1999).

[9] GA Special Needs Scholarship Progress Trends.

- The Savannah Region of the Department of Early Care and Learning's Child Care Resource and Referral Agencies, approximately 1/6 of Georgia's geographic area, has illustrated that use of the Cox Campus shortens the time required to qualify for QRIS designation, significantly changes teacher practice for the better, and reduces the cost of training and travel.

How Atlanta Speech School Facilitates Comprehensive Student Development

The Speech School demonstrates integration across multiple domains of Comprehensive Student Development (CSD). In the sections that follow, we explain the School's model and clarify how the model fuels CSD.

The following aspects of the School's model are critical to its success in facilitating student development:

1. Evidence-driven, comprehensive approach to developing language and literacy

2. Investment in adult expertise, practice, and experience

3. Partnerships to disseminate practices for equitable access to language and literacy

1. Evidence-driven, comprehensive approach to developing language and literacy

The Speech School articulates a clear approach to building language and literacy. Implementing research with fidelity, the approach is comprehensive in its attention to students' cognitive, academic, and social-emotional development and physical health.

"Gutenberg screwed it up for us," according to Comer Yates, referring to the inventor of the printing press. "Reading is not a native function. We have no neural circuit for reading. We have from the third trimester through to age 9 as the key window to construct a reading brain"

"Constructing the reading brain" is an evidence-backed cognitive developmental and sociocultural framework based on the work of Maryanne Wolf and developed by the Speech School's senior academic leaders, Sondra K. Mims, M.A., CCC-SLP (chief academic officer) and Brandi B. Kenner, Ph.D. (former chief of research, innovation & learning). In addition to Wolf's work, the framework represents a comprehensive synthesis of research and practice in the early learning and development and cognitive sciences as posited by researchers such as

Jack Shonkoff, David Dickinson, Julie Washington, Ami Klin, Walter Gilliam, and others. For example, the first phase of the framework, "Preparing the Reading Brain," is nested in the developmental age span of utero through age 5. This portion of the framework pulls from the research of scientists such as Patricia Kuhl and her work on the impact of early language acquisition as it relates to relationships and building executive function, as well as the work of Jack Shonkoff and his colleagues, who coined the phrase "Serve and Return." These serve and return language interactions between caregivers and infants or young children are critical to building the phonemic (i.e., sound) mapping circuits that will lay the foundation for early language and literacy.

Development of this framework signals the School's depth of evidence-backed knowledge of the necessary foundations and building blocks for language and literacy development across the lifespan, beginning in the third trimester in utero when the auditory channels of the brain come online. This understanding is critical to bring to light, as phonemic awareness has remained the highest predictor of literacy acquisition across all languages, for children with and without reading difficulties, for decades.[10]

The School summarizes and applies compelling research via this framework, which addresses multiple domains of development. The framework includes attention to **academic development** (in the form of reading programs aligned to the National Reading Panel's evidence-based "Big 5"), **social-emotional development** (e.g., empathy and attachment), and **cognitive development** (e.g., audiological processing, executive function, self-regulation). **Physical health** is also a primary area of focus as Atlanta Speech School recognizes hearing, vision, and fine and gross motor skills as important to language and literacy development. Physical education is integrated with occupational therapy in a collaborative model, allowing for a more in-depth, multidisciplinary approach to physical development.

Classrooms in the Wardlaw School (serving children with dyslexia and other language-based reading difficulties) are composed of reading teachers and speech language pathologists in a model that addresses not only reading skill acquisition, but the underlying language capacities that impact one's ability to acquire literacy skills. For example, one leader emphasized that there is no such thing as teaching reading skills in isolation. "You can't teach the skills without recognizing and completing the foundational language and other abilities that might not have happened developmentally in a child's first five years. That's like building a house on quicksand."

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[10] Brandi Biscoe Kenner, Nicole Patton Terry, Arielle H. Friehling, and Laura L. Namy, "Phonemic Awareness Development in 2.5- and 3.5-Year-Old Children: An Examination of Emergent, Receptive, Knowledge and Skills," *Reading & Writing* 30, no, 7 (2017): 1575–1594.

Cognitive	Physical	Academic
Mental	Social Emotional	Identity

■ Primary Domain ■ Secondary Domain

Guided by this structure, the Speech School emphasizes adult-child relationships as critical to language and literacy development. This has its roots in research on integrated **social-emotional, academic,** and **cognitive development** — to read well, one must be able to communicate and engage well. To this end, each child at Atlanta Speech School is seen as a "Conversational Partner" to each adult. Children's voices are valued at all times.

Speech School leaders emphasize that strong relationships, consistent access to increasingly challenging language, and feelings of safety, respect, and trust fuel a child's ability to learn. Therefore, at the school, "We value connection over compliance," explained Yates. For example, the school proudly proclaims itself a "no shush zone," per the framework's tenet of not silencing children. This approach is born of research on the detrimental impact of shutting down children's voices as punishment. It also reflects understanding of the historical practices to control language that have oppressed marginalized communities of color, English language learners, students with disabilities, and others.[11] Instead of silencing children, then, Atlanta Speech School teaches listening and engagement. In a hallway interaction during a recent visit, a teacher asked a group of young elementary students, "How will we walk through the hallway in a way that respects others' learning zones?" The teachers give their students agency — guiding them through problem-solving conversationally — building critical thinking skills through which courtesy and respect become intrinsic nature, rather than extrinsically imposed. The students landed on the intended result — a quiet hallway — in a way that welcomed their voices and ideas instead of their being forcefully silenced, while also intentionally developing problem solving, executive function, and empathy.

In another classroom interaction, an eager child spoke over his friend in a small group discussing a story. Rather than "shushing," the teacher affirmed the child: "James, I cannot wait to hear your answer! Let's be respectful and hear Katherine's great answer first!" Consistent, intentional modeling of empathy is a natural and necessary component of the teaching.

These warm adult-child interactions abound at the Speech School. Children are actively engaged by adults and mutual respect is paramount, per the emphasis to "connect with each child," "be each child's conversational partner," and

"serve, return and expand language." This focus on interaction builds relationships, both inside and outside of the classroom. All adults in the School community are empowered to help construct children's reading brains; this includes staff, parents, and even visitors (who are invited to wear the ubiquitous buttons proclaiming various adults at the school as "conversational partners").[12]

Emphasis on connection demonstrates a primary focus on **cognitive, social-emotional, and academic development**. In a video response to the "Every Opportunity" video produced by the Speech School (which went viral on social media, garnering over 100 million views), "'Every Opportunity' Deconstructed," researcher Jacob Ham, director of the Center for Child Trauma and Resilience and clinical assistant professor of psychiatry at the Icahn School of Medicine at Mount Sinai (New York), draws clear links between the School's practice and research on development in these areas. For example, connection supports **social-emotional development** by facilitating attachment, sense of belonging, and relationship skills. Connection encourages **cognitive development**, as students practice audiological processing in conversation or practice self-control and self-regulation when developing their own norms for behavior. Connection creates a necessary foundation for students' **academic development** while also providing them with access to rich language and vocabulary. The vignettes below provide additional glimpses into the Speech School's emphasis on connection as a tool for child development:

- On a recent Wednesday morning, teachers and leaders greeted each student by name at the front door of the School and prompted conversations with students on topics ranging from the weather, to something the child was learning in class, to a child's family.

- A tired student entered a classroom after the start of class. Rather than admonishing the student for being late, the teacher warmly greeted her. "We've been waiting for you and hoping you'd come to school today, Emmy! We're so glad you're here," the teacher said. The student eagerly took her place among her fellow students with a budding smile on her still-tired face.

- Most classes begin with a morning meeting where students can share personal updates. Students during a recent first-grade morning meeting shared how they had spent the long weekend with their families. As students excitedly recounted their adventures, other students were prompted by the teachers to ask questions and practice listening skills.

- Parents receive resources to continue the conversations at home, with guided tools for prompting discussions

[11] David Dickinson, Vanderbilt University.

[12] Center for Early Learning and Public Health.

and connections — beginning with open questions, and modeling "serve and return" approach to conversation. One parent explained, "Everyone understands that every adult is a conversational partner. I started with my oldest here at age 2, and what I learned helped me understand that I had to speak to my second baby in the womb." Another parent said, "The teachers provide us specific topics to work with because we all know the question 'How was your day?' goes nowhere. If I can take a topic like 'construction,' then that generates a conversation, and they can then start sharing with me. I want to develop that conversation piece for the rest of our lives. I don't want them to grow up and shut us — their parents — out. I want to help their confidence, be a part of their educational process."

This environment is appreciated by students and teachers alike. One student reported: "I like that teachers are kind with you. They give you advice. They don't just correct you. They don't yell at you." Teachers also note how the Speech School environment is different from other places they've taught. One reflected, "In my former school, it wasn't teaching students to love to learn. There, I was floored at the emphasis on menial things. It seemed militant. There was no recognition for students' or staff's achievements. The school was not addressing the whole child, they were simply teaching for that test in the spring. Students' creativity and critical thinking declined. Students had trouble coming up with ideas."

Parents note how the School environment affects their child's well-being, which in turn extends to parents' well-being. One father said, "I wanted to make sure that, if there's a learning issue, we deal with it as early as possible before my children decide they don't like school. I see their happiness — they want to go to school. They have so much fun as they're purposefully learning things."

Cognitive	Physical	Academic
Mental	**Social Emotional**	Identity

■ Primary Domain   ■ Secondary Domain

Across each of the schools, instruction is highly personalized to the student. It is rigorous (including evidence-based and National Reading Panel-aligned programs such as Wilson Fundations; the Lindamood Phoneme Sequencing Program for Reading, Spelling, and Speech; and Foundations for Literacy Program); however, it is also designed to be hands-on and engaging in a way that will instill in children a lifelong love of learning.

With strong relationships and classroom communities as a foundation, instruction at the School advances multiple domains of development. Students experience highly personalized **academic development** as they grow as readers, mathematicians, scientists, etc. Students also engage in **cognitive development** as teachers intentionally plan lessons that build auditory processing, visual processing/tracking, and executive functions such as sustaining attention, shifting attention, and planning/sequencing. Classes foster **physical development** with attention to students' fine and gross motor skills. Students experience **social-emotional development** via lessons that build self-efficacy, relationship skills, and social awareness. The snapshots below illustrate what happens in Atlanta Speech School classrooms as well as how teachers describe the intentionality of each lesson:

- Parents are taught that access to language is no less vital when a child cannot hear. In a mock apartment in the Hamm Center, a specialist recently met with the parents of a 6-week-old baby identified as deaf. While addressing the parents' emotional reaction to the diagnosis and answering their questions, the specialist also reviewed recent data from the baby's LENA device, which measured the number of words and interactions between parents and baby. The specialist helped the parents to identify when they were most vocal with their baby and to set goals for the next phase of data collection. The specialist also walked the parents through a day of caring for baby to show them how engaging their baby while bathing, feeding, or changing him can develop the baby's brain. Leaders describe this work as supporting babies' brains and bodies for language and literacy, thus promoting physical development. Social-emotional development is encouraged through facilitated attachment between baby and parents. Cognitive development is spurred as parents are taught to employ routines to spark babies' learning. Talking, reading, singing, and playing with children (as emphasized by these programs) provide young children with early access to language and preliteracy skills that form a foundation for all future academic development. In their close work with parents, the Hamm Center not only supports babies' development but also supports parents' social-emotional needs as they navigate the challenges of parenthood.

- In a Hamm preschool room, students encountered thematic centers filled with rich, play-based learning activities. In one autumn harvest-themed room, a child dressed up as a farmer and engaged in imaginative play and conversation with a teacher by pretending to sell her some fresh eggs while another child used oversized tongs to "bob" for apples. Teachers described the purpose of the room as a place to build positive teacher-student relationships, practice social skills, and use language via play. As the teacher noted, "Each session is split into three

categories: nurturing play, mastery play, and challenging play. Nurturing play models relationship-building by allowing teachers opportunities to build attachment and trust. Mastery play develops self-confidence in students through play that is familiar and fun. Challenging play is used to introduce new social concepts that require practice and development."[13]

- In an age-4 Stepping Stones classroom, an occupational therapist led the entire class in a series of movements to start the day. Children were encouraged to pretend to be elephants, and they gleefully stomped around the room. The intention of this activity, as described by the therapist, was to build gross motor skills. After the movement segment, students engaged in PAC time (focused on phonological awareness, alphabet knowledge, and concepts of print) with a speech-language pathologist. As part of their preliteracy and language development, students learned about the letter B and the /b/ sound. A variety of inviting stations awaited the students. A station featuring a tub with boats was used for students to practice the /b/ sound, another station was designed to help students recognize B in print form, and a storytelling session focused on access to rich vocabulary and complex sentence structure.

- In an age-3 Stepping Stones classroom, PAC time featured another storytelling session. As described by the teacher, the goals of this reading were to build students' ability to segment words in a sentence, to know that print carries a message, to learn that reading happens from left to right, to recognize spaces between words, and to practice receptive and expressive language skills through using the pronoun "I" and a verb plus "-ing" to formulate sentences.

- In another Stepping Stones preschool classroom, students engaged in centers based on their areas of relative need. Two children used peg boards and rubber bands to re-create lines and letters written on a paper while the teacher paid close attention to each child's practice and offered words of encouragement. The children were extremely focused on the active, hands-on task. The teacher explained that the exercise was designed to support auditory processing, phonemic awareness, phonics, executive functioning, and visual-spatial development. Another pair of children in the same classroom worked with an occupational therapist to properly grip a pencil and write their names. The therapist indicated this was an activity designed for a subset of students needing intensive fine motor support. Elsewhere, a small group of children gathered around a table topped with thick shaving cream; laughter filled the air as the kids smelled and pressed their fingers into the soft foam. The teacher facilitated an activity in which she pronounced a sound or letter. Children practiced drawing the letter with their fingers in the shaving cream while repeating the letter aloud. The teacher said this exercise supported auditory processing, phonemic awareness, executive functioning, and visual-spatial development.

- In a 3-4 Kenan classroom, a group of eager children gathered around a teacher. The teacher used complex, math-related language like "subitize" as she introduced a game. During the game, the teacher briefly removed a block to reveal an illustration of pumpkins before replacing the block and asking children to identify the number of pumpkins. Children worked together to land on a final answer. The teacher removed the block again and the group counted to confirm the number of pumpkins. The teacher later explained that the activity was designed to spur development in math, reinforce students' language skills, and build students' abilities to work in groups. The activity also promoted cognitive skills like short-term memory and visual processing.

- Across several lower elementary classrooms in Wardlaw, students practiced language and literacy skills via game-like activities. In each small group, students gave each other support and words of encouragement as they completed the exercises. Some students wrote out a teacher's sounds (as amplified by a microphone), others used magnets to identify phonemes in a word, others engaged in a rhyming activity, and others practiced reading aloud for fluency. Assessment data and teacher observations indicated what skills each student practiced.

- In an upper elementary Wardlaw classroom, children researched complex vocabulary from an article they had just read. Students shared their reflections on the article (demonstrating comprehension) while teaching others the vocabulary words they needed to look up. During the

[13] Doris Bergen, "The Role of Pretend Play in Children's Cognitive Development," *Early Child Research & Practice* 4, no. 1 (2002).

activity, children utilized various seating options from bouncy balls to traditional desks; students were prompted to select the seating option that would best allow them to focus on the research task. The teacher explained her practice as supporting language and literacy skills (including vocabulary and comprehension), study and research skills, and collaborative work, while noting that the diverse seating options promote students' ability to self-regulate.

• In a Wardlaw upper elementary science classroom, students prepared for an upcoming field trip by learning about the different geographical features of Georgia's shoreline. After a teacher delivered a brief oral introduction to a feature, students completed "quick writes" to describe the feature in their own words. Eventually, those quick writes would provide students with content to inform a longer essay to connect their classroom learning and field trip experience. The teacher said that the structure of the project is designed to support higher-order receptive and expressive language skills (e.g., summarizing), executive functioning and study skills, auditory processing, and students' ability to see themselves as successful learners.

In observing their children in classrooms, parents note the difference in the Speech School's science-based approach to learning. One parent recounted, "We were in another preschool setting earlier. There, they wanted to help. Here, they KNOW how to help. They just know what to do." Another mother noted, "This place is such a gem. When your child is not learning, you don't know where to turn. This is the place. I'll never forget coming here and Comer saying, 'You don't have to be your kids' teachers anymore.' That was so relieving for me."

Cognitive	Physical	Academic
Mental	Social Emotional	Identity

■ Primary Domain   ■ Secondary Domain

Even out-of-classroom experiences at the Speech School are designed with science in mind. Cognitive, physical, social-emotional, and identity development have each been considered and incorporated. Students engage in **physical development** that attends to gross motor skills while also waking up or refreshing the brain for learning. Students practice **social-emotional development** like social awareness and relationship skills via unstructured play or directed group

activities. **Identity development** occurs as students self-select groups and activities that reflect their personal interests. Activities also prompt **cognitive development** by requiring student self-regulation, spatial skills, imagination, turn-taking, and sustaining or shifting attention.

• During the Wardlaw Wake-Up, students arrive at school and select activities that will "best activate their brains for the academic day." Students may choose from among several activities, including playing outside, challenging peers to a board game, joining a chorus, or engaging with technology. Leaders note that the Wake-Up allows for better self-regulation once the school day begins as students enter the classroom with a body and brain prepared for learning.

• Students also enjoy a playground built to stimulate development. During a recent morning recess, some students raced down a track on scooters, while others constructed various forts and buildings using oversized building blocks and still others played ball. Every structure is purposeful, as leaders describe: "The treehouse promotes social interaction, gross motor strength, and imaginative games. The swings and other spinning structures activate all three canals of the vestibular system, which helps integrate a child's sense of balance and can influence both the visual and auditory systems. Snug Play is a modular playground system that encourages children to work collaboratively by creating obstacle courses or forts. Students work on balance, muscular strength, and bilateral coordination while riding bikes and scooters."[14]

2. Investment in Adult Expertise, Practice, and Experience

Cognitive	Physical	**Academic**
Mental	**Social Emotional**	Identity

■ Primary Domain   ■ Secondary Domain

The Speech School's robust, science-based practice to comprehensively foster students' growth is made possible through significant investment in staff's comprehensive professional development. The staff understand that the impact they have at each program — whether Hamm, Kenan, Stepping Stones, or Wardlaw — is carried outward through the Rollins Center and the tens of thousands of members on the Cox Campus. Emphasis is placed on ensuring each staff member knows

[14] Robert Murray and Catherine Ramstetter, "The Crucial Role of Recess in School," American Academy of Pediatrics policy statement, 2013.

that they are the epicenter of change, and that by being at the Speech School they will be able to make the greatest possible difference for each child on campus and every other child.

The Speech School recognizes its unique and privileged ability to hire staff from a range of specialties. The School sees this integration of specialties as important, especially given the unique needs of the population of students it serves. Teachers speak of the power of being able to attend to a child's academic, speech and language, and occupational therapy-related needs all in one place. Staff also laud the cross-pollination of knowledge that occurs when experts from different fields work in close contact. As one teacher said, "I love the many disciplines here. Those with therapeutic backgrounds are very research-based. Classroom teachers have that training. We rely on each other. It's symbiotic."

The Speech School's focus extends well beyond recruiting and hiring by facilitating ongoing rigorous, formal and informal professional development. Teachers receive over 100 hours of development annually as they attend conferences, engage in study groups focused on cutting-edge research papers, conduct frequent observations of one another's practice, and collaborate as co-teachers. The result is an organization of remarkable intentionality, innovation, and continuous learning — all grounded in current brain science. Teachers come eager and prepared to teach classes based in this science and report that the deep emphasis on ongoing research and learning fuels their continued engagement in the school.

Teachers elevate the connection that they feel with one another and with leadership. This mirrors (and supports) the School's focus on adult-child connections as critical to the construction of the reading brain. In this context, adults' feelings of connection promote personal and professional development.

This attention to teachers' professional development, grounded in science, addresses teachers' academic, mental, social-emotional, identity, and agency-related needs.

The Speech School supports teachers' ongoing **academic development** in their areas of expertise as they encounter deep and extensive research and put it into practice. This development, in an environment focused on connection and the whole person, spurs development of other domains. The way in which staff are treated furthers their **social-emotional development** (such as their self-efficacy and sense of belonging), their **identity development** (such as their sense of purpose), and their **mental health** (in the form of life satisfaction and fulfillment). Teachers, in turn, are thus better equipped to support students across all domains of development. The reflections below illustrate what this looks and feels like for teachers at Atlanta Speech School:

- "[During undergrad and grad school,] I worked at a reading clinic. I even took on a full-time role on a research project. I thought about what I wanted to do and felt pulled in two directions: research and practice. When I found this place, it integrated both. Research is so intertwined in our work. That drew me in and will keep me engaged and challenged for a long time."

- "The Speech School is like a graduate school for teachers."

- "I love it here. I want to live here. I went to undergrad through master's because I wanted more tools in my teaching toolbox. I get even more tools here. I can't imagine being anywhere else."

- "You have experts in different fields here. You're encouraged to dig into various interests. I became interested in developing a growth mindset. I was able to attend a seminar up in Boston, where I learned and shared back with co-workers. Someone here will always know about a topic. If not, they'll know who or where to go. I get to do my own projects, and I get tons of support. I feel encouraged to take what I learned and try something creative with my class. Recently I did that and ended up with something that I presented at a national conference."

- "Here, there's just the right amount of freedom, support, and professional development. And it's ongoing. Admin are on top of research and pass that on to us. They provide us training and we learn from coworkers. There's so much freedom, but everything is so purposeful, so systematic."

- "The School's mission sees reading and writing as inherently social acts. Everyone is behind that mission. It allows for cohesive collaboration with co-workers and modeling for students. It's the merging of different areas: people who love what they do, who are motivated to learn and share research, who have the freedom to do that in classrooms."

- "We've managed to take ego out. There are no dumb questions. It's 'ask ask ask' instead of 'You're supposed to know that.' And when you don't teach with anxiety, your kids can be calmer."

- "There's a rich culture of learning with the educators. Everyone learns so much from each other. We're passing each other in the hallway and getting suggestions or sitting to meet about a problem. There's investment in our continued education."

- "My teacher education helped me always do what I'm doing based on natural development and growth. Other places, I kept butting up against things that didn't align with children's natural development and growth."

- "Before the Speech School, I didn't know if I wanted to continue in the profession because it was such a taxing job. It's hard when you love what you do and you are in a position where you want to help but your hands are tied. I came here, and it has been life-changing, personally and professionally. I feel like I'm back to myself. I have the autonomy to give my kids what they need. Our admin speak to us and respect us as professionals. We receive so much support, and we can then support our children. It sets everyone up for success."

- "I was leaving at 6:30 p.m. one day. I told Comer that I was so grateful for this place. He then turned around and said, 'YOU are a blessing to us.' People don't tell you that stuff in other schools. It's not about the pat on the back. But it's good to know you're part of a team that wants you here."

3. Partnerships to Disseminate Practices for Equitable Access to Language and Literacy

Considering itself a teaching hospital means that the Speech School translates research into scalable practice. From this vantage point, the School is charged by its mission to spread its approach to building language and literacy. It does this via more than 100 partnerships (e.g., with the state Departments of Health, Early Care and Learning and Education; Atlanta's Grady Hospital; the Metro Atlanta YMCA; and the non-profit Refugee Family Literacy Program), via direct coaching of school leaders and teachers (such as through its work with early learning providers like the City of Marietta, Sheltering Arms, the YMCA of Metro Atlanta, Easter Seals North Georgia, and with the Atlanta Public Schools), and via its Cox Campus.

In expanding its influence, the School is particularly focused on reaching children from low-income families, dual-language learners, and children of color. As Yates shared, "We were making big differences for the children we served, but we served a group of kids that reflected too narrow of a group — many children didn't have access." He framed the school's partnerships as an effort to "break the cycle of illiteracy for children whose families have experienced generational lack of access or denial of access to educational opportunity. This is deeply entangled in issues of race and justice in Atlanta. If you change the trajectory for the children who've generationally been denied educational access, you are doing this for every child, and if you are building reading brains, you are also breaking a 400-year cycle of silence."

The Speech School has just formed a partnership with the National Campaign for Grade Level Reading to promote the Cox Campus to its leadership coalitions in 44 states and to build deep government and philanthropic partnerships for better early childhood literacy outcomes in four states to be named later.

Cognitive	Physical	Academic
Mental	Social Emotional	Identity

■ Primary Domain   ■ Secondary Domain

As the School is driven by the research showing that language and literacy have their foundations in utero, it is compelled to launch programs and partnerships for early development and intervention in order to maximize impact.[15,16] The work done via these programs and partnerships focuses on child development across domains. "Language nutrition is just as important as food nutrition for babies," as Yates said.

The Speech School applies learnings to its work with Grady Hospital (Grady) via the Talk with Me Baby (TWMB) Program. Grady Hospital is an Atlanta institution, serving predominantly low-income families and families of color. The work began with the School's connection to researchers proving that reading brains do not naturally develop — they must be constructed. The School and Grady leaders recognized the research that families are impacting their babies' abilities to eventually become literate.

In this innovative partnership, the Speech School and the Georgia Department of Public Health have helped Grady develop an approach to building language and literacy foundations prenatally and in babies' first years. Through TWMB, health care providers model and coach families so they have the capacity to provide their babies with crucial language and

[15] Patricia K. Kuhl et aL., "Early Speech Perception and Later Language Development: Implications for the 'Critical Period,'" *Language Learning and Development* 1, no, 3–4 (2005): 273–264
[16] Janet F. Werker and Richard C. Tees, "Cross-Language Speech Perception: Evidence for Perceptual Reorganization During the First Year of Life," *Infant Behavior and Development* 25,, no. 1 (2002): 121–133.

social interactions in their formative years. To that end, every-one at Grady Hospital — from the doctors and nurses to the receptionists and security guards — has been trained to be "conversational partners" with babies.

Leaders describe TWMB's primary focus as academic and social-emotional development. As babies access rich language, their brains are prepared for future learning; they thus experience early **academic development**. The focus on rich conversation between parent and child supports **social-emotional development** in the form of strong attachment. Leaders note that Talk With Me Baby also has an impact on **cognitive and identity development** as well as **physical and mental health**, as all domains are "intimately tied to early brain development, secure attachment with responsive caregivers, and reading proficiency."

Dr. Roland Matthews, chair of OB/GYN at Grady, described the power of the work: "Every mother wants to have good outcomes for her baby. Providers have been really engaged … Grady knows that women's health is important. This program is a part of an overall Grady focus on women and community. We became one of the first hospitals in Georgia to be baby-friendly, which starts the mother's bonding with baby very early. Talk With Me Baby is an important part of this work."

The Speech School is working with the state Departments of Health, Early Care and Learning and Education along with other partners to establish a new definition of a "healthy delivery," so the standard of care is defined as that which Grady has already implemented. Their combined goal is to have every baby leave every birthing center with their family prepared to provide the language nutrition needed for healthy brain development. The Cox Campus will make this possible for every hospital and every caregiver when Talk With Me Baby is added to the suite of infant-toddler courses in the fall of 2020.

In a recent letter from Dr. Joshua Sparrow, the Executive Director of the Brazelton Touchpoints Center at Children's Hospital Boston said, of his visit to Grady, "I have had the privilege of observing numerous programs in healthcare, early education and child welfare settings around the country…and the effectiveness of Talk With Me Baby, and its strategic implementation that brilliantly build on the science of organizational change processes, are exemplary."

Dr. Walter Gilliam, the DIrector of the Edward Zigler Center in Child Development and Social Policy of Yale University adds, "I am positive that babies and families in birthing hospitals around the country would greatly benefit from Talk With Me Baby."

Focus on early development extends to dual language learners,

young children learning and developing in two or more languages. This multi-site implementation and partnership focuses on improving the quality of the educational experiences of young DLLs, who make up 22% of Georgia's population of children birth to 8 years.

The program approaches the work from an ecosystem perspective - every element in the learning environment supports the development of DLLs - and everyone in this ecosystem-leaders, teachers, families - works collaboratively toward the preparation of the child's reading brain and the foundation of all learning. The following ecosystem elements have been identified as critical for dual language learners: (1) a culturally responsive environment, (2) home language support and connections, (3) intentional focus on oral language, (4) intentional and consistent use of instructional supports (e.g., props, modeling, repetition, comprehension checks), (5) observation and fair assessment, and (6) strong partnerships with families.

Ultimately, the program will lead to the development of a Preschool/Pre-K DLL track for the Cox Campus, heralded by The Gift, a DLL promise video emphasizing the importance of the first language in a DLL's development.

A success story is well exemplified by Refugee Family Literacy, a super diverse program. Refugee mothers speaking over 20 languages bring their children to a center in Clarkston, Georgia, a resettlement community outside of Atlanta. At the center, mothers receive access to education, services, and supports while children are introduced to early English language foundations. Rather than having English crowd out the child's home culture and language, dual language development is encouraged through through interactions between mothers and child and through intentional hiring of bilingual staff that speak children's first languages. As a leader at Refugee Family Literacy summarized: "This is a two-generation approach. A child's mental health will be better if a mother has a stable emotional situation."

The conditions by which the School supports dual language learners fuel multiple domains: mental health and academic, social-emotional, identity, and cognitive development. Students access language and literacy skills across two languages (English and a home language), thus fostering **academic development**. Research shows that bilingualism has positive impact on **cognitive development**. The explicit attention to the attachment between child and family develops **social-emotional** and **mental health**. The approach to dual language support recognizes a child's home language and culture as an asset (versus something to downplay), thus helping young children (and their families) develop **cultural identity** (i.e., the sense of belonging to a cultural community that reaffirms self or personhood for the individual).[17] The vignette below shows one way in which this development happens at Friends of Refugees:

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[17] Jackson, 1999.

• A Friends of Refugees leader described: "At the end of every day, we have Parent and Child Together Time (PACT) time. We bring child and mom together with literacy. There's always a lot of playing. We help mothers engage kids with the books. The mothers might not be reading English yet, but they can make up stories in their home language using pictures. We want to promote family bonds. We want to keep emphasis on English AND non-English language."

Cognitive	Physical	**Academic**
Mental	**Social Emotional**	Identity

■ Primary Domain　■ Secondary Domain

The Speech School partners with early learning centers in the Atlanta area and Atlanta Public Schools elementary schools to build capacity for educators using research-based practices. Leaders of partner schools are empowered to contextualize the research, as the Speech School recognizes the importance of culturally responsive approaches. The result is more students who have access to the cognitive, academic, and social-emotional development required for language and literacy development.

Through its Rollins Center, the School has shared its model, including explicit attention to culture/ecosystem, connection, and cognitive and academic development. Rollins employs coaches who work alongside Atlanta-area school leaders to transfer research and practice and to support implementation. The Speech School has expanded the reach of its professional development resources via the online platform, Cox Campus.

Through the Cox Campus, the Rollins Center equips more schools and educators to support students' **academic, cognitive**, and **social-emotional development** that are core to the School's research-based approach to language and literacy development.

The Speech School works with early learning centers to promote equitable language and literacy development. A veteran teacher at a Sheltering Arms preschool recently demonstrated one strategy learned from the Speech School in her classroom of predominantly black students from low-income families. The teacher's connection with students was palpable — hugs abounded, and when a father dropped off his son late, the teacher welcomed the student and wished the father a good day with a quick hug and big smile. During reading time, the teacher picked "The Little Engine That Could" as students eagerly settled on the comfortable carpet.

The day before, the students first encountered "The Little Engine That Could." Following the School's READ model, this first reading focused on the characters and events of the story. The teacher explicitly taught new language and the basic facts of the story, using strategies like PAT (point, act, tell) to make the story come alive while providing child-friendly definitions of new vocabulary words.

During the observed "second reading," the teacher read the same story — this time with explicit instruction about the characters' thoughts and emotions. Through this reading, all students received access to the same lessons about social dynamics found in the book.[18]

During the final "third reading," the students' shared foundation prepared them to discuss the book via engaged, two-way conversation and rich language. During this read, the teacher again asked questions that helped students recall what they'd learned and additionally invited her students to extend and apply the learning to their own lives.

One leader reflected on the impact of the early learning center's Speech School-fueled approach to language and literacy development through attention to the whole child: "Students who might otherwise 'fly under the radar' learn how to express themselves. A parent recently appeared at the school in tears. In the past, when her son was not happy with her directions, he would kick and scream. The child lacked the language to express himself. The parent said that the child now said, 'I am frustrated with you!' As much as the parent felt dismay over the interaction, her overwhelming feeling was of gratitude. Her son had learned a new word from the week's book — frustrated — and had been supported to productively express his emotions. His ability to apply this learning constituted a breakthrough in his relationship with his family, as the mother said she wanted to learn new words to use with her son.

The Speech School has also partnered with elementary schools in the Atlanta Public Schools to share strategies for whole-child learning. These schools are referred to as Every Opportunity Schools, or schools "where no child is silenced, connections are valued over compliance, and research-based practices are applied to seize 'Every Opportunity' to construct children's reading brains so that they will have choice-filled lives." Every Opportunity Schools are encouraged to contextualize the Speech School's approaches to their unique communities. In 2018, the Every Opportunity Schools Leadership Council merged with Learn4Life — in which all Atlanta Metro School Districts participate - through a series of Design Labs. The Design Labs are an effort to understand the way school systems / districts handle professional development, how they evaluate their literacy practices and ultimately how the Cox

[18] Dan Johnson, "Transportation into a Story Increases Empathy, Prosocial Behavior, and Perceptual Bias toward Fearful Expressions," *Personality and Individual Differences* 52, no. 2 (2012): 150–155.

Campus can become a driving component of their literacy professional learning.

- One school's staff had watched the ["'Every Opportunity' Deconstructed" video](#), which shows the difference between a school that emphasizes compliance and a school that emphasizes connection. They then developed school norms and practices, inspired by the video, for school arrival, cafeteria time, classroom time, assemblies, and dismissal.

- One school identified an opportunity to promote teacher-student connection amid data review cycles. The school leader attached a child's picture to her data presentation, so that when teachers dug into interim assessment data, they remembered the whole child.

- In 2019, Learn4Life conducted research to identify the elementary schools serving low income families in the metro Atlanta area that saw the greatest gains in literacy outcomes. Usher Elementary School, with which the Rollins Center has worked since the 2014-15 school year, was the 2nd highest rated school for gains in literacy scores for its low-income children. In addition, Usher was one of the three metro Atlanta Schools featured on Learn4Life's tour of elementary schools with the highest gains in literacy scores.

- From the Speech School, staff learn how to be good conversational partners with students. Leaders noted the helpfulness of strategies for extracting and extending language, as these strategies build students' academic skills and relationships.

  Extracting: Connecting with a child and supporting a child in converting their thoughts to spoken words.

  Strategies:
  - Asking questions about a child's interest
  - Saying "Tell me about..."
  - Pulling out language
  - Providing discussion prompts
  - Open-ended questioning
  - Asking "How?" and "Why?"

  Extending: Connecting with a child, then building on the spoken words they have already shared by providing complex vocabulary, rephrasing their thought in a more complex way, language modeling, or encouraging them to restate fragmented ideas as complete thoughts.

  Strategies:
  - Modeling Tier 2 vocabulary usage
  - Pushing in language
  - Elaborating on/ rephrasing what a child says
  - Phonemic awareness activities
  - Nursery rhymes and language pay
  - Modeling complex sentence structures

- Staff receive direct instruction in the National Reading Panel's "Big 5" (phonological and phonemic awareness, phonics, vocabulary, fluency, and comprehension) and are supported to develop students in these areas via formal and informal interactions — inside and outside the classroom — to leverage connection and foster a love of learning while ensuring the mechanics of reading are explicitly taught with fidelity to the science. This support for teachers addresses the fact that "whole language" instruction is not common and teachers are not commonly instructed to teach in this way.

Leaders of the Speech School's partner schools espouse a common definition of student success. As one principal noted, "We have a whole-child approach. We want all students to do well academically. We also want to help students build character and solve problems. Can you relate to others? Do you have integrity? Can you analyze a situation? Are you happy?"

Leaders laud the partnership for helping them to translate their visions into action. One principal reflected, "I've been here since the start of the partnership four years ago. It brings an outside view. When you're in the system, you're so deep into the day-to-day ... to have someone to bring you the research and science? They partner with us, recognize we know the community, and want to meet our needs. The tools really shine a light on reading gaps in knowledge and in teacher prep. Depending on which year you got your education as a teacher, you may have gaps. The details are something we really needed assistance with. As a student, I didn't struggle in reading. So as a teacher, I was not a good reading teacher. It took a few years to figure out what's the best model for us, and we love the Speech School's focus on building capacity." Another said, "The focus on relationships is an intentional strategy, not just another program. We look at what the work has done in teachers, students, parents, and communities. It gave us opportunities to define individual student goals in academics, emotional, and personal development. The partnership wasn't just data and charts, but students. It was no longer 'I'm a teacher with 23 kids.' It was 'I'm a teacher with some students who have issues in phonics, some in digraphs, some in reading comprehension.' It was no longer 'What are you doing in your classroom?' but 'What are we doing collectively?'"

Conclusions

Core elements of the Atlanta Speech School model — research-driven, comprehensive approach to developing language and literacy; investment in adult expertise, practice, and experience; and securing partnerships to ensure distribution of equitable access to language and literacy for every

child —promote Comprehensive Student Development. Across its model, the Speech School demonstrates integration across all six domains. The particulars of the Speech School model are deeply informed by its uncompromising dedication to language and literacy; its focus on students with learning differences; a dedication to equity beyond its walls; established relationships with key researchers in the fields of neurobiology, child development, and social science; and a devotion to applying the research with fidelity in the classroom. In addition, themes elevated in this case study about what development in these areas looks and feels like and details about how this development occurs are designed to be broadly applicable, as illustrated by the Cox Campus and the School's extensive partnerships with public schools and agencies.

What enables this success?

The section that follows summarizes aspects of the Speech School model that enable its success in Comprehensive Student Development. This section is intended to demonstrate the intentionality and comprehensiveness of the School's approach.

The "What": Mission, Vision, and Definition of Student Success

Mission/Vision

- The Atlanta Speech School's mission and vision depict a broad definition of student success (e.g., "to develop his or her full potential," to "decide his or her own future").

- The mission and vision articulate language and literacy skills as key to this success. The School's research-based approach to language and literacy requires Comprehensive Student Development — extended from each child on the physical campus to every child potentially reached through the instruction on Cox Campus.

The "How": Curriculum and Educational Approach

Community Engagement

- The Speech School empowers parents and community members as children's conversational partners; this promotes student early learning across domains. For example, Speech School parents receive conversation starters to use with children; visitors wear buttons identifying them as "conversational partners"; the School's "Talk With Me Baby" partnership with local Grady Hospital builds capacity in families, through hospital staff, to talk with babies.

- The Speech School equips leaders of Atlanta-area early childhood centers, medical facilities, and elementary schools with research-based approaches to building language and literacy. Leaders at partner schools contextualize the approach for their communities.

- A partnership with selected sites at Easter Seals North Georgia and Sheltering Arms, and Refugee Family Literacy supports the development of preschool dual-language learners. Teachers are supported in the implementation of research-based practices grounded on the importance of incorporating the child's first language as an important educational support. This partnership serves as the incubator for the Cox Campus courses for teachers of dual language learners that will be on the Campus beginning in Spring 2020.

Instructional Methods

- Instruction is intentional, multisensory, and targeted to a child's specific needs (determined by data). In one classroom, a student may practice fine motor skills with an occupational therapist while another practices print awareness with a teacher.

- Instruction emphasizes language and literacy. Math and science classrooms model complex language, expose students to rich texts, and feature writing activities.

Curriculum and materials

- Classrooms feature engaging materials designed to build skills needed for language and literacy. An activity in which students draw letters in shaving cream captures student interest, builds fine motor skills, prompts audio and visual processing, and supports the practice of phonemic awareness.

- Texts are selected to be language-rich and engaging. A reading of "The Little Engine That Could" was selected for a particular group at a particular point in the year because of the vocabulary and social-emotional themes in the book.

Student Culture

- Leaders describe the Speech School's culture as "connection over compliance." Warm relationships (forged via meaningful conversation) are at the center. This focus is based on research on the prerequisites for a reading brain (e.g., empathy, attachment), which include specific attention to "silencing no child."

Assessments and measures

- With a commitment to "measuring what matters" and individualized instruction, teachers collect a significant amount of data to know students' exact language/literacy strengths and areas of need. This informs the lessons students receive.

Interventions

- Some Speech School programs are designed as interventions for students with identified hearing or learning challenges. The Hamm Center is an early intervention program for infants through pre-K students who are deaf or hard of hearing; Stepping Stones is an early-intervention program for preschool-aged children experiencing speech and language delays; and the Wardlaw School is designed as a short-term (2-3 year) intervention for school-aged children with dyslexia.

- Occupational therapists and speech and language pathologists work in classrooms to provide real-time interventions (versus a pull-out model of service).

- The School also promotes preventative care. For example, the "Talk With Me Baby" program with Grady Hospital supports babies' early language and literacy development (thereby reducing need for interventions later in life).

The "How": Operational Systems

Use of physical space

- Out-of-classroom playground spaces are designed to promote students' development across domains (e.g., cognitive, physical, social-emotional).

- Classrooms are set up to promote language and literacy by displaying children's work, including artwork, dictations, and writing. Displays of meaningful print throughout the room help children connect symbols of print to purpose. Books are in Book Center, but also in all centers. For example, in the cooking center, you find recipe books; in the building center, books on construction. Props in centers are specifically chosen to encourage conversation; writing materials correspond to imaginative play (such as message pads or appointment books); wall displays are always at children's eye level. All displays are functional and purposeful: less is more. Children's artwork is changed frequently.

- Classroom themes are changed monthly to build deeper background knowledge and understanding, especially around science and social studies concepts.

- Classrooms include various types of chairs so that students can self-select the seating option that will best encourage them to focus. Some of the chairs reinforce students' physical development (e.g., a bouncy ball chair that promotes students' balance).

- Intentional design of spaces such as the playgrounds, bicycle track, OT rooms, and PE gym provide students with opportunities to safely develop their motor skills and to participate in dynamic games with their peers.

Use of tech

- Philosophy of technology throughout all age levels is that technology is used to supplement content. In younger classrooms, for example, this may mean sharing webcam footage to better illustrate hibernation (in a temperate region where most children haven't seen snow). In the media center, technology is used to expand ways of thinking about and using content; for example, there were pumpkin illustrations in the hallway posted by the Media Center created by Wardlaw Upper School students. A downloadable app displays the child who created the pumpkin, talking about what they have created and the thinking behind it.

- Use of assistive technology is built in to classroom instruction of Wardlaw, so that children with dyslexia are better able to understand content (listen to audio while reading along), to more clearly express themselves (writing-assistive application).

- Hamm preschool classrooms are equipped with microphones and listening devices so that hard-of-hearing students are able to better access their learning through hearing. This practice is carried over to other preschool classrooms, to enhance focus of the young students.

- Infants and young children in Hamm may wear a LENA device, which measures the number of words exchanged between a child and his/her conversational partners. Teachers may review this data with parents to support rich language development at home.

- The School has built the Cox Campus, an online destination for delivering professional development modules and building community among teachers across the country. The goal of this technology is to equip more leaders and teachers in more places with research-based approaches to developing students' language and literacy skills.

- In the 2019-20 school year, the School has opened the Martha West Looney Learning Commons. With a STEAM focus, the Learning Commons has replaced the school library with an expanded mission to develop what Dr. Maryanne Wolf refers to as the "biliterate" deep-reading brain - enabling children to develop into deep readers while also getting the most out of what technology and experiential learning offer.

The "Who": Talent

Leadership

- The Speech School leadership develops strong partnerships throughout the Atlanta community and with researchers from around the country.

- Leaders have backgrounds in education, speech and language pathology, and occupational therapy. This continues the School's history of bringing together experts from diverse fields. It also supports the School's commitment to bridging research and practice.

Staff

- There are more speech language pathologists per capita than any other school in the state. This is part of the connective tissue of the Speech School: that is, with an overarching commitment to language and literacy, the School understands the direct tie between spoken and written language. While reading must be intentionally taught and reading circuits must be constructed, reading is a language-based process, dependent upon natural and complete language development.

- Staff come from a variety of fields (e.g., education, speech and language pathology, and occupational therapy, psychology). Staff members are expected to share research and best practice.

- Teachers regularly meet to read research, share best practice, or discuss student supports.

- The in-house professional development requirements are in addition to requirements to stay current in their respective fields. These requirements can be met through both in-house and off-site workshops and conferences. (Lead teachers, 20 hours/year, assistant teachers 10 hours/year, plus state or professional organization requirements.)

- Teachers at the Speech School describe the staff culture as highly collaborative, respectful and focused on continuous learning, warm, and appreciative. Everyone is keenly aware of the skill levels of peers — expectations are high, and there is a pride in knowing the latest research and current practices. The programs and Rollins Center learn from each other — practices at Speech are taken to the field. Field successes are taken to the Cox Campus, and the Cox Campus coursework is informed by Rollins and the Speech School practices and outcomes, both observed and measured.

- The Speech School invests in teacher development as a primary lever for expanding impact. Via its partnerships with Atlanta-area schools and its Cox Campus work, the Speech School builds adult capacity to develop students' language and literacy skills.

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