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TURNING ASSESSMENT DATA INTO ACTION

What Practitioners Need to Know

By Isabel Acosta and Marta Benito-Gomez

Assessment data can be a powerful tool for identifying learning gaps, informing instruction, and strengthening parent-educator collaboration.[1] However, traditional approaches to collecting and analyzing these data detract from their potential benefits. Assessment data are often not made available until months after an assessment is given, making it difficult for educators to use the data to inform daily practice and for families to track and respond to their child's progress. Moreover, the data that are made available are often presented in ways that are time-consuming or difficult for educators and families to interpret.[2]

The Measures for Early Success Initiative (Measures Initiative), led by MDRC, is focused on developing new early learning assessments that deliver timely, easy-to-understand, and relevant insights for both educators and families.[3] In the Initiative, interdisciplinary project teams are partnering directly with community members and caregivers to design new assessment tools.[4] Throughout the assessment development process, project teams conduct focus groups, interviews, and pilot testing to understand educator and family wants and needs regarding access to relevant and actionable assessment data.[5]

Drawing on insights gathered through this process, this publication highlights three features of assessment tools designed to maximize the value of early childhood assessment data for educators and families. Awareness of these features can help practitioners such as program leaders, instructional coaches, and system administrators select the most effective assessment tools for improving children's early learning experiences.[6] While there are many important facets of high-quality assessment, such as content and user experience, this piece concentrates on the facet of usefulness — that is, whether and how the assessment data can be acted on. For those interested in exploring other dimensions, additional companion pieces and content repositories are available.[7]

When data are collected frequently, presented clearly, and tied to action, they can be aggregated across classrooms and sites to reveal patterns that are hard to detect through observation or end-of-year reports alone — for example, which skills are improving over time, where progress is stalling, and whether some groups of children are benefiting more than others. In addition to supporting classroom practice and families, these data also help leaders at the system level understand which interventions and programs are working for their population and where additional support is needed.

System-level usefulness depends on the same features that make assessment data useful to educators and families. When classroom-level data are delayed, confusing, or disconnected from action, system leaders cannot rely on them to inform decisions about professional development, resource allocation, and quality improvement. In this way, usefulness for educators and families is not separate from system-level usefulness; it is the foundation that enables continuous improvement across classrooms, homes, programs, and communities.

Feature 1: Data Are Delivered Frequently and in Real Time

Across the early childhood landscape in the United States, assessments for young children are not mandated or regulated as they are in other schooling systems.[8] As a result, in preschool, assessment frequency, administration, processing, and reporting vary by state, district, program, and center; consequently, robust and centralized systems for managing and reporting assessment data are few and far between.[9]

In many early learning settings, the pace of assessment and data reporting lags behind the continuous and dynamic nature of child development.[10] Many preschool educators conduct comprehensive, summative assessments at only three standard checkpoints spread throughout the school year (usually early fall, early winter, and mid-spring).[11] After selecting and conducting assessments themselves, educators must then wait for results to trickle back to the classroom after data are recorded (often by hand), uploaded into a database, analyzed, and packaged into a static report.

Infrequent assessment and slow data reporting in preschool can leave educators and families in the dark about children's evolving educational needs and achievements.[12] As one educator explained during a Measures Initiative focus group: "We need immediate support, [we can't] wait until fall, spring, and winter to do checkpoints.... [It would be very helpful if] you can get those ratings before that, especially if you have a child or student that is struggling." Families expressed similar concerns, with one caregiver noting: "It's important [to know] what my child needs and what they're learning [and for me to always be] aware of the things that their teacher [is teaching] them ... because that's how we reinforce what [happens] in the classroom. You're working together [with the teacher] — not separately." Shifting to more frequent assessment and data reporting has the potential to transform how educators and families work together to understand and support children's growth.

Innovative digital tools are beginning to provide more frequent assessments that can rapidly analyze incoming data and generate summaries of what children know and can do — in real time. Real-time data sharing with families may not yet be feasible for these nascent tools, but in the meantime, timely insights for educa-

tors can help them better coach and guide families in supporting learning at home. One promising example from the Measures Initiative comes from Khan Academy Kids, a popular online platform with over 5,000 learning activities for young children.[13] The Khan team has developed an assessment approach composed of short, standards-aligned activities that can be easily embedded in typical pre-K classroom activities.[14] Another innovative tool from the Measures Initiative is I-SPEAK, an assessment platform developed by experts from the University of Minnesota, the University of Oregon, Aviellah Curriculum and Consulting, and FableVision. I-SPEAK is designed to capture children's skills through interactive stories that employ "stealth assessment" — that is, technology that "unobtrusively assesses students' learning progression while they are engaged with highly interactive and immersive environments."[15]

Both assessment tools capture snapshots of individual children's skills in specific areas, such as measurement or receptive language, which can then be shared nearly instantaneously with educators in easy-to-understand formats. By focusing on timeliness from the beginning — not as an afterthought — these tools make educators a priority, with an end goal of empowering them to adjust instruction in real time.

When a child is assessed, the Khan and I-SPEAK tools automatically record and analyze child responses and sync this information to a centralized database, making it immediately available to relevant decision-makers — like school administrators, instructional coaches, and monitoring agencies. This automatic flow of data unburdens teachers from data management, while also accelerating teachers' instructional decision-making in tasks such as lesson planning, by allowing them to more quickly target developmental needs and provide scaffolding for individual children. In early learning environments where each day matters, real-time access to assessment results enables educators to respond quickly and effectively to children's evolving needs and strengths. For practitioners, selecting tools that support timely data sharing is a major opportunity to strengthen responsiveness and foster collaboration that allows educators and caregivers alike to act on insights into the child's development without delay.

When these timely classroom-level data are aggregated across sites, they can paint a system-level picture of how the early learning ecosystem is functioning. Interested parties can spot patterns, identify emerging needs, and direct resources, coaching, or interventions accordingly. Importantly, they can monitor whether and how policy shifts impact child outcomes over time.

Feature 2: Data Are Presented in Ways That Are Easy to Understand and Comprehensive

To be useful in supporting children's learning, assessment results must be more than just available; they need to be easy to understand and relevant for all educators and families. Traditional score reports often categorize children's performance in terms of abstract levels such as color-coded or numerical tiers, which are frequently not explained in detail and can thus take time for educators and families to learn to interpret. Score reports also often lack visual summaries, such as charts and graphs, which can be especially helpful. Commenting on visual aids, one educator explained that "it's easy to glance and get the info you need

instead of searching for it." Another added, "When I get the report, I like to see it as a graph and where the children land on a chart and show progression over the year."

Families echoed the need for clear presentation of data and insights. One caregiver expressed interest in seeing "a breakdown of everything showing what [my child] knows and what they don't know: What did they miss? What questions were asked that they struggled with? And what questions did they excel at?" Across both groups, the message is clear: Data reports should be specific, yet easy to interpret, and are most useful when they clearly depict where a child is thriving and where additional support is needed. Assessment tool developers in the Measures Initiative are working in tandem with educators and families to develop new ways of presenting results that are easy to understand and that provide a comprehensive picture of student performance. For example, Khan Academy Kids has developed a teacher dashboard — shown in Figure 1 — that visually shows progress in individual skills.[16] Other elements that aid understanding are the simple color scales that correspond to standardized skill levels (age 2, age 3, age 4, kindergarten) and having changeable dashboard views via filters (by student, standard, class, or skill level). In addition to its unique visual components and presentation formats, the Khan Academy Kids platform provides score reports for both English and Spanish skills, allowing for a more direct comparison of what a child knows across both languages. In a focus group, one educator praised this design choice, saying that the "best part of this [score breakdown] is the English/Spanish comparison."

Reflecting another innovative approach to data reporting, the I-SPEAK tool presents data on children's progress using growth metaphors. The class view shows students' performance across domains — such as math and social-emotional learning — as plants developing from "yet to plant" to "emerging," "growing," and "flourishing" and shows how many children fall within each stage (as shown in Figure 2). An individual child's view displays each student as a flower. Each of the five petals represents a domain and the petal length indicates the level of progress — from "emerging" to "growing" or "flourishing" — within that domain (as shown in Figure 3). This approach, paired with developmentally anchored scores, allows educators and families to quickly grasp where a child is thriving and where more support may be needed. By visually representing a child's strengths as a familiar developmental progression, the I-SPEAK tool may make assessment data more accessible by displaying child strengths in ways that are meaningful to a wider audience of educators and families.

Practitioners and their teams should look at their assessment score reports and determine whether they feel that clarity and meaningful reporting are reflected as priorities. Clear, consistent reporting also matters at the system level. When data visualizations are intuitive, administrators can more easily compare patterns across sites, track progress toward goals, and communicate trends to staff members and families.

Feature 3: Assessment Tools Tie Data to Action

With available and accessible data, the next step is to ensure the data are useful to educators and families by binding assessment results to actionable insights. This includes offering learning activity suggestions and information about specific pre-K skills that children are developing, so their progress can be supported both in the classroom and at home. As one educator in a focus group noted, "I think recommendations

Figure 1

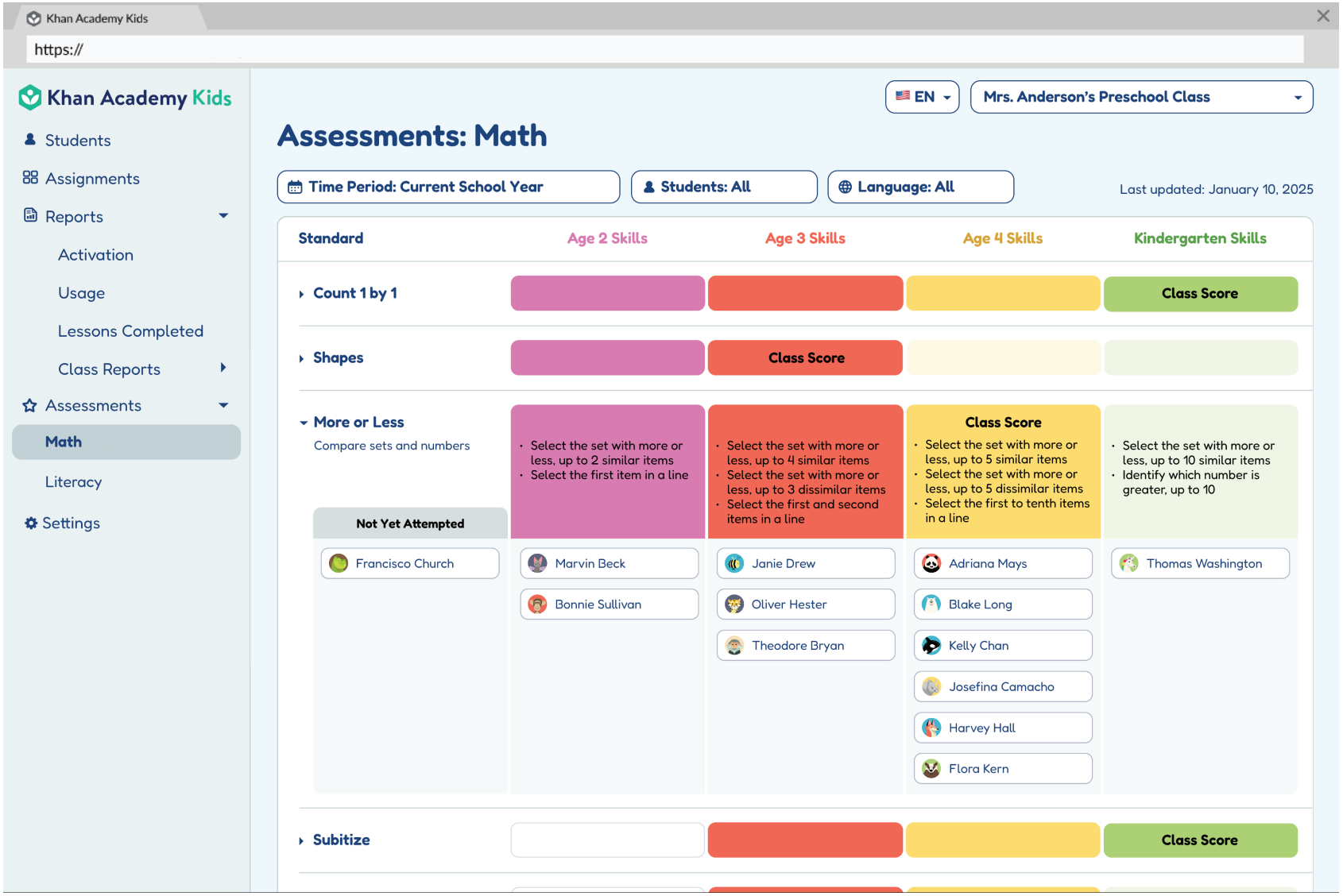

Khan Academy Kids
https://
Khan Academy Kids
Students
Assignments
Reports
Activation
Usage
Lessons Completed
Class Reports
Assessments
Math
Literacy
Settings
EN
Mrs. Anderson's Preschool Class
Assessments: Math
Time Period: Current School Year
Students: All
Language: All
Last updated: January 10, 2025
Standard
Age 2 Skills
Age 3 Skills
Age 4 Skills
Kindergarten Skills
Count 1 by 1
Class Score
Shapes
Class Score
More or Less
Compare sets and numbers
Select the set with more or less, up to 2 similar items
Select the first item in a line
Select the set with more or less, up to 4 similar items
Select the set with more or less, up to 3 dissimilar items
Select the first and second items in a line
Class Score
Select the set with more or less, up to 5 similar items
Select the set with more or less, up to 5 dissimilar items
Select the first to tenth items in a line
Select the set with more or less, up to 10 similar items
Identify which number is greater, up to 10
Not Yet Attempted
Francisco Church
Marvin Beck
Bonnie Sullivan
Janie Drew
Oliver Hester
Theodore Bryan
Adriana Mays
Blake Long
Kelly Chan
Josefina Camacho
Harvey Hall
Flora Kern
Thomas Washington
Subitize
Class Score

Figure 2

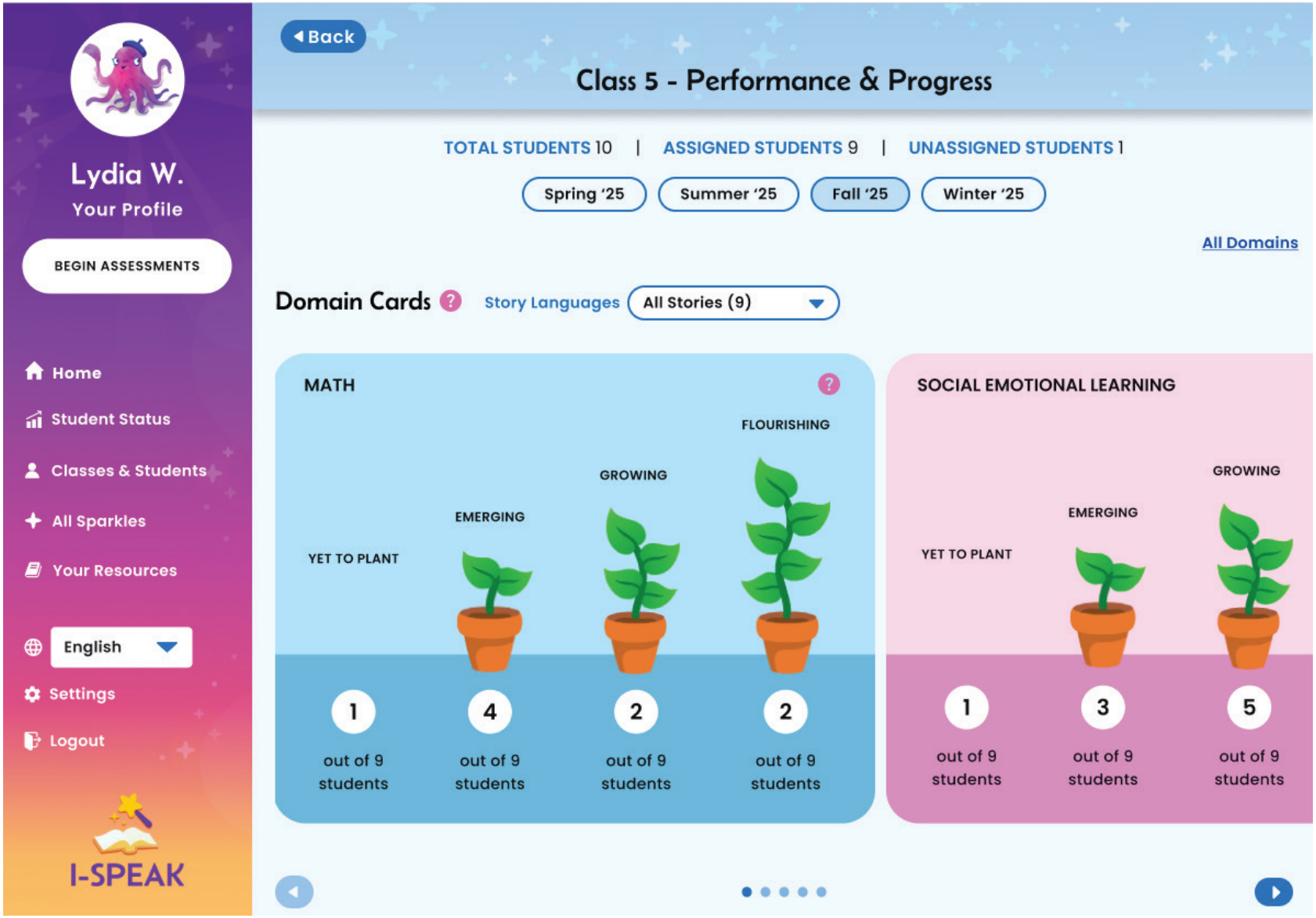
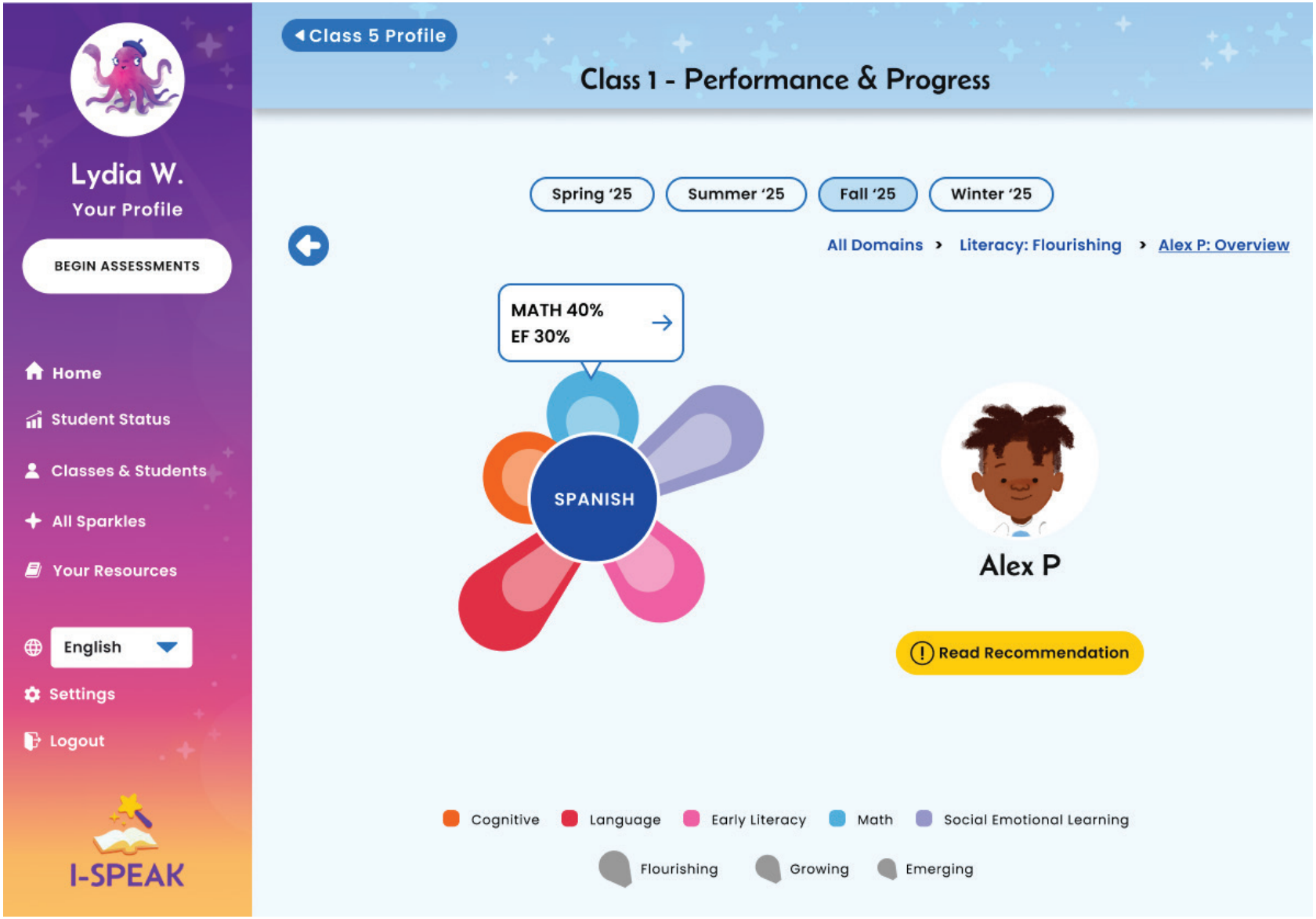

Back
Class 5 - Performance & Progress
TOTAL STUDENTS 10 | ASSIGNED STUDENTS 9 | UNASSIGNED STUDENTS 1
Spring '25
Summer '25
Fall '25
Winter '25
All Domains
Lydia W.
Your Profile
BEGIN ASSESSMENTS
Home
Student Status
Classes & Students
All Sparkles
Your Resources
English
Settings
Logout
I-SPEAK
Domain Cards
Story Languages
All Stories (9)
MATH
YET TO PLANT
EMERGING
GROWING
FLOURISHING
1 out of 9 students
4 out of 9 students
2 out of 9 students
2 out of 9 students
SOCIAL EMOTIONAL LEARNING
YET TO PLANT
EMERGING
GROWING
1 out of 9 students
3 out of 9 students
5 out of 9 students

Figure 3


Lydia W.
Your Profile
BEGIN ASSESSMENTS
Home
Student Status
Classes & Students
All Sparkles
Your Resources
English
Settings
Logout
I-SPEAK
Class 5 Profile
Class 1 - Performance & Progress
Spring '25
Summer '25
Fall '25
Winter '25
All Domains › Literacy: Flourishing › Alex P: Overview
MATH 40%
EF 30%
SPANISH
Alex P
Read Recommendation
Cognitive
Language
Early Literacy
Math
Social Emotional Learning
Flourishing
Growing
Emerging

would be a 'nice-to-have' with the formal assessments." Similarly, families also seek guidance on how to support learning outside the classroom. One caregiver expressed a preference for "whatever [the children] learn in school, or the way they learn in school, to be shared with [caregivers] at home, so [the children] can be familiarized with it at home with repetition."

To address this need, the Measures Initiative developer teams are incorporating features that use a child's assessment data to recommend specific instructional strategies for that child. For example, Khan Academy Kids is using its learning activities platform to make data actionable for teachers and administrators.[17] If a child struggles with a particular assignment, educators can use the recommended Khan Academy Kids learning activities to provide extra practice and support. By tailoring activity suggestions to performance on routine assessments, the tool does more than just measure children's growth — it also promotes it. For practitioners selecting and implementing assessments, using tools that aim to translate raw scores to actionable next steps is a powerful way to transform data into meaningful changes in practice.

At the system level, tying data to action also makes it easier to learn from implementation and understand what is working across different contexts. When tools connect children's performance to recommended strategies or activities, leaders can examine which supports are being used, where they are being used, and whether they are associated with improvements over time, both overall and for specific groups of children. When these action-oriented tools are connected to robust data infrastructure, they can also be used to identify strategies that drive improvement at a larger scale. Together, these features of early learning assessment tools can create conditions for systems to move beyond measurement and toward learning by using everyday classroom data to strengthen instruction, refine support strategies, and build an evidence base for meaningful, systemic change.

Conclusion

While assessment data hold great promise for informing instruction and supporting learning, many educators and families still face barriers in making the most of it. Practitioners can change this by choosing assessments that yield timely, easy-to-understand information and highlight effective next steps — principles that are central to the tools being developed under the Measures for Early Success Initiative.[18] When these features are kept at the forefront, programs and systems can learn about what works for whom and when, in order to build more effective learning environments for all children. By choosing tools that generate timely, interpretable, and actionable data, practitioners and leaders can collectively build a continuous improvement cycle that bridges practice and policy.

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