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OFFICE OF THE DEPUTY SUPERINTENDENT

December 7, 2023

TO: The Honorable William Arakaki Chairperson, Student Achievement Committee

FROM: Heidi Armstrong Deputy Superintendent

SUBJECT: Review of Strategic Plan Desired Outcome 1.1.1: All entering kindergarten students are assessed for social, emotional, and academic readiness and provided necessary and timely support to develop foundational skills for learning.

1. EXECUTIVE SUMMARY

The Hawai'i State Department of Education (Department) recognizes kindergarten as the foundation for students' development into lifelong learners. Students' differing kindergarten readiness levels at school entry are associated with later levels of school success.¹ However, it is important to note that kindergarten readiness levels only account for approximately 25% of the variance in students' later school success.² Factors including home-school relationships, kindergarten classroom quality, and instructional quality are also influential for fostering students' early learning success - factors that the Department can address from students' first days of school, using students' Kindergarten Entry Assessment (KEA) data to inform policy and practice. To this end, the Department will present the findings from the first implementation of the English-medium KEA and provide an update regarding the development of the Kaiapuni KEA. The Department will also describe initiatives in process for addressing Desired Outcome 1.1.1. A summary of the presentation is as follows:

¹ Pianta, R. C., & Cox, M. J. (1999). *The transition to kindergarten: A series from the National Center for Early Development and Learning.* Paul H. Brookes Publishing.

² La Paro, K. M., & Pianta, R. C. (2000). Predicting children's competence in the early school years: A meta-analytic review. *Review* of *Educational Research*, 70(4), 443-484. <u>https://doi.org/10.3102/00346543070004443</u>

- English-Medium KEA Outcome Data Statewide. The Department adopted the Johns Hopkins University (JHU) *Ready for Kindergarten* assessment system in October of 2022 to satisfy the legislative requirements of Act 210, Session Laws of Hawai'i (SLH) 2021. It was implemented statewide for the first time, with the exception of Lāhainā Complex, during School Year (SY) 2023-24, with 10,260 kindergarten students assessed to date (85% of total enrollment to date). Results of the assessment indicate only 29.6% of students across the state are demonstrating baseline readiness at kindergarten entry.
- Kaiapuni KEA Development Update. Through collaboration with the Office of Hawaiian Education (OHE) and the Office of Curriculum and Instructional Design (OCID), in partnership with the University of Hawaii (UH) Mānoa, the Department convened a working group of kumu Papa Mālaa'o (*kindergarten teachers*) in July 2023, as well as other stakeholders, to begin development of Nā Ana KEA Kaiapuni (*Kaiapuni KEA standards*). A follow-up virtual convening will be scheduled for December 4, 2023, to receive community feedback, particularly from early childhood stakeholders. After this, Nā Ana KEA Kaiapuni will be used to develop the initial assessment items for field testing in SY 2024-25.
- Explanation of Quality Kindergarten Initiatives. The Department is exploring the essential question - *What is quality kindergarten?* This question aims to facilitate ongoing research and collaboration to foster the highest quality kindergarten settings possible in service of all domains of early childhood development. The question also addresses the relationship between quality kindergarten and the related Strategic Plan Desired Outcomes, particularly relative to 3rd grade literacy and 8th grade mathematics.

To conduct this research, the Department is enacting the following major initiatives and related initiatives:

- Major Initiatives
 - KEA Implementation
 - US Department of Education Kindergarten Sturdy Bridge Learning Community
 - Kindergarten Guidebook Science of Learning and Development in Practice
 - Academic and Social Emotional Development Practices
 - Kindergarten Transition Practices

- <u>Related Initiatives</u>
 - Summer Start Kindergarten Transition Program
 - English Language Arts (ELA) Standards Review
 - OCID-Sponsored Language Essentials for Teachers of Reading and Spelling (LETRS) Cohorts

2. DESCRIPTION

The first five years of students' lives are times of profound linguistic, social, emotional, physical, and cognitive development. Particularly significant is students' development of language³, with early oral (or signed) vocabulary levels predicting reading achievement⁴, mathematics achievement⁵, behavior, and emotional identification⁶, and social relationships.⁷ At kindergarten entry, students' prior development across these skills, especially oral language, is highly predictive of later academic and social functioning.⁸ Without quality supports and timely interventions, students who enter kindergarten with fewer developmental milestones met are likely to underachieve throughout their later school experiences.⁹ This underscores the importance of a KEA that examines students' entry-level skills across these domains to understand how to best support diverse learners from the beginning of their educational journey.

The Department implements the JHU *Ready for Kindergarten* KEA in the English-medium classrooms to measure students' entry-level school readiness across critical early childhood developmental domains - Language and Literacy, Mathematics, Social Foundations, and Physical Well-Being and Motor Skills. The domains fully encompass those specified in Act 210, SLH 2021, with the additional domain of Approaches to Learning embedded within Social Foundations. These domains collectively refer to what the Science of Learning

³ Morgan, P. L., Farkas, G., Hillemeier, M. M., Scheffner Hammer, C., & Maczuga, S. (2015). 24-month-old children with larger oral vocabularies display greater academic and behavioral functioning at kindergarten entry. *Child Development, 86*(5), 1351-1370. <u>https://doi.org/10.1111%2Fcdev.12398</u>

⁴ Perfetti, C., & Stafura, J. (2014). Word knowledge in a theory of reading comprehension. *Scientific Studies of Reading, 18*(1), 22-37. <u>https://doi.org/10.1080/10888438.2013.827687</u>

⁵ LeFevre, J., Fast, L., Skwarchuk, S., Smith-Chant, B., Bisanz, J., Kamawar, D., & Penner-Wilger, M. (2010). Pathways to mathematics: Longitudinal predictors of performance. *Child Development*, *81*(6), 1753-1767. <u>http://dx.doi.org/10.1111/j.1467-8624.2010.01508.x</u>

⁶ Eisenberg, N., Sadovsky, A., & Spinrad, T. L. (2005). Associations of emotion-related regulation with language skills, emotion knowledge, and academic outcomes. *New Directions for Child and Adolescent Development, 109*, 109-118. <u>https://doi.org/10.1002/cd.143</u>

⁷ Menting, B., Van Lier, P. A. C., & Koot, H. M. (2010). Language skills, peer rejection, and the development of externalizing behavior from kindergarten to fourth grade. *Journal of Child Psychology and Psychiatry and Allied Disciplines, 52,* 72-79. <u>https://doi.org/10.1111/j.1469-7610.2010.02279.x</u>

⁸ Morgan, P. L., Farkas, G., Hillemeier, M. M., Scheffner Hammer, C., & Maczuga, S. (2015). 24-month-old children with larger oral vocabularies display greater academic and behavioral functioning at kindergarten entry. *Child Development, 86*(5), 1351-1370. <u>https://doi.org/10.1111%2Fcdev.12398</u>

⁹ Princiotta, D., Flanagan, K. D., & Hausken, E. G. (2006). *Fifth grade: Findings from the fifth-grade follow-up of the Early Childhood Longitudinal Study, kindergarten class 1998-99 (ECLS-K)*. U.S. Department of Education.

> and Development (SOLD) shows is critically important for all students to develop in early childhood to thrive across the lifespan. This is the first year of assessment implementation and the first year of data collection regarding students' kindergarten readiness levels and developmental progress upon entry to English-medium classrooms.

The Department is facilitating the sharing of aggregated KEA data with the Executive Office of Early Learning, the Department of Human Services, and the State Public Charter School Commission, per the requirements of Act 210, SLH 2021. The Department has led these sharing sessions, and KEA data is not being shared in any raw forms with external partners at this time. In this presentation, the Department will present the available charter school data separately from the Department school data.

A Kaiapuni KEA is in development for full implementation in Kaiapuni classrooms by SY 2026-27. OHE has developed *Kaiapuni KEA standards* that address the necessary developmental domains and will collect stakeholder feedback through a focus group on December 4, 2023, in preparation for initial item development. Item development will occur in the spring of 2024, with item field testing beginning in SY 2024-25.

3. PRESENTATION

This presentation will focus on the Department's quality kindergarten initiatives related to the 2023-2029 Strategic Plan Phase II Implementation Plan, Goal 1: High-Quality Learning for All, Desired Outcome 1.1.1. All entering kindergarten students are assessed for social, emotional, and academic readiness and provided necessary and timely support to develop foundational skills for learning.

Theory of Action

The Department has developed the following Theory of Action (Table I) to frame its work towards Desired Outcome 1.1.1:

	Tal	ole I: Theory of Action								
	Desired Outcome:									
	All entering kindergarten students are assessed for social, emotional, and academic readiness and provided necessary and timely support to develop foundational skills for learning									
	Imp	lementation Activities:								
When we:	Create a sys	stem for providing quality kindergarten to all students								
Then:	readiness, a	ect and analyze data on students' developmental nd provide infrastructure supports to schools and as to respond to students' readiness needs								
So that:	Teachers can create quality kindergarten environments that support students' foundational skills development across all domains of early learning									
Via these initiatives:	Focus KEA Implementation Area #1 Implementation									
	Focus Area #2	US Department of Education Kindergarten Sturdy Bridge Learning Community								
		Kindergarten Guidebook - Science of Learning and Development in Practice								
		 Academic and Social Emotional Development Practices Kindergarten Transition Practices 								
As measured by:	Metric #1	# of students assessed with the adopted KEA								
	Metric #2	# of students Emerging, Approaching, and Demonstrating Readiness								
	Metric #3	# of kindergarten teachers, leadership, and support staff receiving professional learning in SOLD (including Science of Reading)								
	Metric #4	# of schools implementing kindergarten transition practices								

The Department has consolidated these implementation activities under two areas of focus.

Assessment Landscape and Instructional Landscape

Area #1 - Assessment Landscape. KEA Implementation requires tri-level coordination between the Department, complex areas, and schools. The first year of assessment implementation was highly successful because all Department schools participated in the assessment process, including assessment administration and data entry. Furthermore, all complex areas had the support of at least one KEA complex area lead. These leads were critically important to the KEA implementation process and provided excellent support to their schools. The implementation process also faced some technological challenges with the JHU's online assessment platform, and a professional learning community with the KEA complex area leads will be implemented to refine the technological infrastructure practices experienced in preparation for Year 2.

Area #2 - Instructional Landscape. Kindergarten is a unique grade level that bridges informal learning in the home and community, and sometimes formal preschool education, with the formal, compulsory K-12 educational system. Of particular importance to prekindergarten through 3rd grade instruction, including kindergarten, is SOLD, which encompasses the developmentally appropriate instructional practices that optimize young students' learning. These practices support the development of skills across all domains assessed on the KEA, per Act 210, SLH 2021. The Department is engaged in a learning community with the U.S. Department of Education to enhance our quality kindergarten goals through SOLD, possibly including developing a Kindergarten Guidebook. SOLD is directly tied to the Science of Reading (SOR), a critical-related Department initiative, which informs how students acquire language and literacy skills.

Response to the KEA must include timely supports and interventions directly impacting students' individual learning and development needs. The Department is exploring the development of professional learning in Academic and Social Emotional Development Practices for those students who do not reach Demonstrating Readiness on the KEA domains. These practices might include templates for schools to document and articulate the area(s) of need for the student and the plan for providing interventions, including guidance for appropriate interventions corresponding to students' domain-level needs. The Department is also investigating the existing status of kindergarten transition practices in each complex area and/or school, to develop subsequent supports and guidance regarding research-informed practices. These explorations will

occur as a part of the U.S. Department of Education Kindergarten Sturdy Bridge Learning Community.

Performance Measures

The Department will measure progress toward Desired Outcome 1.1.1. with the metrics detailed in Table II below.

Metric #1 and Metric #2 will be annually documented in Longitudinal Education Information (LEI) Kukui beginning this SY 2023-24 as a part of the Strategic Plan Implementation Plan. Internal, identifiable data from Metric #1 and Metric #2 will be stored in LEI Kūlia.

Metrics #3 and #4 will be documented in LEI Kukui in the future, once the Department has determined the data collection procedure.

	Performance Measures					
Metric #1 # of students assessed with the adopted KEA						
Metric #2	# of students Emerging, Approaching, and Demonstrating Readiness					
Metric #3	# of kindergarten teachers, leadership, and support staff receiving professional learning in SOLD (including SOR)					
Metric #4	# of schools implementing kindergarten transition practices					

The Department is currently able to report annual outcomes for Metric #1 and Metric #2 through the implementation of the KEA in English-medium classrooms for SY 2023-24 to date. Statewide outcomes to date are as follows:

State	% Tested	Demonstrating 270-298	Approaching 258-269	Emerging 202-257	Language & Literacy	Mathematics	Social Foundations	Physical Development
	85%	29.6% n = 3042	39.5% n = 4055	30.9% n = 3166	262.4	265.6	265.3	267.6

In this chart, the percent of students **Demonstrating, Approaching**, and **Emerging Readiness** is depicted first. This is followed by the **Average Scale Score** for each domain of the assessment, color-coded to correspond to **Demonstrating, Approaching**, and **Emerging Readiness.** In the following tables, data for each District and Complex is presented.

Complex outcomes to date are as follows:

Complex	% Tested	Demonstrating 270-298	Approaching 258-269	Emerging 202-257	Language & Literacy	Mathematics	Social Foundations	Physical Development
Farrington	97%	9.3% n = 42	35.2% n = 159	55.5% n = 251	254	256.3	256.2	256.9
Kaiser	98%	58.1% n = 129	30.2% n = 67	11.7% n = 26	270.3	273.7	274.8	275.9
Kalani	98%	38.2% n = 98	36.7% n = 94	25% n = 64	265.8	271	263.7	267.5
Kaimukī	89%	34.1% n = 85	37.3% n = 93	28.5% n = 71	262.4	265.5	267.9	267.9
McKinley	84%	11.4% n = 26	33.6% n = 77	55% n = 126	255.6	259.2	256.6	260.5
Roosevelt	99%	41.4% n = 172	40.8% n = 170	17.7% n = 74	267.1	270	269.6	275.9

Honolulu District

Windward District

Complex	% Tested	Demonstrating 270-298	Approaching 258-269	Emerging 202-257	Language & Literacy	Mathematics	Social Foundations	Physical Development
Castle	85%	26.2% n = 68	45.8% n = 119	28% n = 73	262.6	266.2	263.4	268.6
Kahuku	92%	37.4% n = 89	41.2% n = 98	21.4% n = 54	265.8	268.4	265.6	269.8
Kailua	92%	38.4% n = 63	45.1% n = 74	16.5% n = 27	267.2	268.9	267.7	272
Kalāheo	89%	43.7% n = 118	41.1% n = 111	15.2% n = 41	267.7	274.8	270.2	272.9

Complex	% Tested	Demonstrating 270-298	Approaching 258-269	Emerging 202-257	Language & Literacy	Mathematics	Social Foundations	Physical Development
'Aiea	99%	36.8% n = 91	33.2% n = 82	29.9% n = 74	264.2	266.8	266.8	270.8
Moanalua	97%	43.1% n = 112	35% n = 91	21.9% n = 57	267.4	270.7	266.5	268.7
Radford	89%	27.9% n = 117	44.8% n = 188	27.4% n = 115	264.5	266.8	263.9	264.9
Leilehua	96%	23.4% n = 133	45.2% n = 257	31.5% n = 179	261.4	264.3	264.6	265
Mililani	99%	47.2% n = 207	34.6% n = 152	18.2% n = 80	268.3	270.7	271.2	274.4
Waialua	100%	35.5% n = 33	44.1% n = 41	20.4% n = 19	264.8	267.9	270.5	268

Central District

Leeward District

Complex	% Tested	Demonstrating 270-298	Approaching 258-269	Emerging 202-257	Language & Literacy	Mathematics	Social Foundations	Physical Development
Pearl City	85%	35.5% n = 141	37.8% n = 150	26.7% n = 106	265.6	268.7	266	268.3
Waipahu	93%	23.5% n = 108	40.2% n = 185	36.3% n = 167	259.2	262.2	263.8	265
Campbell	77%	31.3% n = 188	42.8% n = 257	25.8% n = 155	262.3	265.2	268.5	270.4
Kapolei	89%	29.9% n = 114	39.4% n = 150	30.7% n = 117	262.6	264.2	267.1	271.1
Nānākuli	34%	18.0% n = 9	34.7% n = 17	46.9% n = 23	256.6	254.5	268.8	268.3
Waiʻanae	78%	8.3% n = 18	39.9% n = 87	51.8% n = 113	253.6	256.3	260	260.4

Complex	% Tested	Demonstrating 270-298	Approaching 258-269	Emerging 202-257	Language & Literacy	Mathematics	Social Foundations	Physical Development
Hilo	88%	27.5% n = 68	45.3% n = 112	27.1% n = 67	262.4	268.6	261.4	270.6
Waiākea	94%	30.0% n = 57	37.4% n = 71	32.6% n = 62	260.8	263.5	268.2	271.9
Ka'ū	87%	17.4% n = 8	41.3% <i>n</i> = 19	41.3% n = 19	256.9	265.2	257	260
Kea'au	88%	18.5% n = 33	45.5% n = 81	36.0% n = 64	258.2	262.4	264	265.4
Pāhoa	92%	21.2% n = 27	40.9% n = 52	37.8% n = 48	257.5	260.6	265.3	266.4
Honoka'a	91%	25.9% n = 35	41.5% n = 56	32.6% n = 44	262.1	264.1	264.6	265.2
Kealakehe	89%	24.1% n = 59	35.9% n = 88	40.0% n = 98	260.8	262.1	262.1	266.1
Kohala	98%	18.5% n = 12	43.1% n = 28	38.5% n = 25	259.3	264.3	259.7	264.8
Konawaena	74%	26.2% n = 32	37.7% n = 46	36.1% n = 44	255.4	256.4	270.6	269.3

Hawai'i District

Complex	% Tested	Demonstrating 270-298	Approaching 258-269	Emerging 202-257	Language & Literacy	Mathematics	Social Foundations	Physical Development
Hāna	28%	9.1% <i>n</i> = 1	36.4% n = 4	54.6% n = 6	252.5	255.9	257.9	264.9
Lāhainā*	10%	18.2% n = 2	54.5% n = 6	27.3% n = 3	257.5	266.3	267.8	269.5
Lānaʻi	86%	6.5% n = 2	38.7% n = 12	54.8% n = 17	254.7	260	261.5	256.1
Molokaʻi	100%	42.6% n = 23	40.7% n = 22	16.7% n = 9	263.6	271.4	267.3	274
Baldwin	96%	19.6% n = 56	39.2% n = 112	41.3% n = 118	260.2	263.6	260.7	261.8
Kekaulike	75%	21.1% n = 48	39.9% n = 91	39.0% n = 89	260.1	263.4	264.3	262.6
Kūlanihākoʻi	81%	16.2% n = 22	35.3% n = 48	48.5% n = 66	255.3	259.3	261	262.6
Maui	96%	17.8% n = 54	40.9% n = 124	41.3% n = 125	258.5	261.2	261.5	261.5

Maui District

Kaua'i District

Complex	% Tested	Demonstrating 270-298	Approaching 258-269	Emerging 202-257	Language & Literacy	Mathematics Social Foundations		Physical Development
Kapa'a	95%	31.0% <i>n</i> = 61	40.6% n = 80	28.4% n = 56	265.2	268.1	264.8	267.3
Kaua'i	95%	33.5% n = 80	35.4% n = 84	31.4% n = 75	262.3	266.3	265.7	266.1
Waimea	89%	37.1% n = 53	37.8% n = 54	25.2% n = 36	263.8	268.2	267.1	272.8

Charter Schools

Complex	% Tested	Demonstrating 270-298	Approaching 258-269	Emerging 202-257	Language & Literacy	Mathematics	Social Foundations	Physical Development
Charter Schools	47%	39.0% n = 148	38.4% n = 146	22.6% n = 86	267.8	270.8	274.4	272.8

The data reflects widespread needs across all domains of early childhood development, across the majority of complex areas, with only 29.5% of students in the state demonstrating readiness at kindergarten entry. This is particularly important because the items on this assessment reflect skills and abilities that students would reasonably be expected to already know at kindergarten entry, not content that should be learned during kindergarten.

Domain-level outcomes suggest that Language & Literacy is the area of greatest need for nearly all complexes, followed by Mathematics - both content areas generally addressed during preschool or early education experiences. Kaiser Complex in Honolulu District, Kalāheo Complex in Windward District, and Mililani Complex in Central District demonstrated the highest readiness levels across the four assessment domains.

Multiple factors influence early childhood development and readiness for kindergarten. This data demonstrates the necessity of statewide collaborative efforts to support early childhood opportunities and experiences. Further examination of the data and discussion with relevant stakeholders will occur to promote these opportunities for students.

The Department is currently developing procedures for documenting and collecting data relative to Metrics #3-4. Professional learning through the U.S. Department of Education Kindergarten Sturdy Bridge learning community will support the Department's working group to develop the procedures and infrastructure for realizing the major initiatives that these metrics address.

Major Initiatives

The following are the Department's quality kindergarten major initiatives within their respective focus areas:

Assessment Landscape

1. KEA Implementation

<u>Rationale</u>: The landmark Early Childhood Longitudinal Study¹⁰ demonstrated to scale that students enter kindergarten with disparate levels of readiness, and that students with higher readiness levels maintain significant advantages over their "less ready" peers in reading, mathematics, and science at the end of fifth grade (and beyond). Readiness, however, is a complex construct informed by five years of each student's unique early childhood experiences

¹⁰ Princiotta, D., Flanagan, K. D., & Hausken, E. G. (2006). *Fifth grade: Findings from the fifth-grade follow-up of the Early Childhood Longitudinal Study, kindergarten class 1998-99 (ECLS-K)*. U.S. Department of Education.

and developmental trajectories. The Department's role in administering the KEA should be to *ready schools* for meeting the needs of all kindergartner learners, with the understanding that all students will be developmentally, academically, and socially unique.¹¹

<u>Next Steps</u>: The technological infrastructure provided by the JHU presented challenges to implementation. To improve the user experience, OCID will host a professional learning community with the KEA complex area leads to guide streamlining schools' interfacing with the technology. This will be disseminated before the Year 2 implementation of the assessment.

The timeline for the Kaiapuni KEA development is as follows:

- Spring 2024: Item Development
- Fall 2024: Field Testing
- Winter 2024: Technical Report
- Spring 2025: Develop Final Test Form
- Fall 2025: Operational Field Testing
- Winter 2025: Technical Report
- Spring 2026: Training and Finalization
- Fall 2026: Kaiapuni KEA Fully Operational

<u>Five Year Reach</u>: All students in English medium and Kaiapuni classrooms will be assessed with their respective KEAs.

Instructional Landscape

2. U.S. Department of Education Kindergarten Sturdy Bridge Learning Community

<u>Rationale</u>: While child-level developmental factors are an important consideration for teachers in designing and implementing their kindergarten classroom instruction, these factors only account for 25% of the variance in students' achievement in kindergarten and beyond.¹² In other words, 75% of the variability in kindergarten students' achievement has been attributed to school and community factors - suggesting that the Department's focus on fostering quality kindergarten, as opposed to students' readiness alone,

¹¹ Pianta, R. C., Rimm-Kaufman, S. E., & Cox, M. J. (1999). Introduction: An ecological approach to kindergarten transition. In R. C. Pianta & M. J. Cox (Eds.), *The transition to kindergarten: A series from the National Center for Early Development and Learning* (pp.3-12). Paul H. Brookes Publishing.

¹² La Paro, K. M., & Pianta, R. C. (2000). Predicting children's competence in the early school years: A meta-analytic review. *Review of Educational Research*, *70*(4), 443-484. <u>https://doi.org/10.3102/00346543070004443</u>

> should play an important role in affecting students' academic and social-emotional development. With this in mind, the Department is entering into a year-long professional learning community sponsored by the U.S. Department of Education and facilitated by University of North Carolina at Chapel Hill's Frank Porter Graham Child Development Institute. The focus will be on fostering quality kindergarten in the Department by designing and implementing initiatives to improve students' instructional experiences, empower kindergarten teachers, and build up the Department's early learning infrastructure in prekindergarten through 3rd grade.

> <u>Next Steps</u>: The Department will use this learning community to develop the framework for the *Kindergarten Guidebook* - *Science of Learning and Development in Practice* and the template design and documentation for the *Academic and Social Emotional Development Practices*. Within the *Kindergarten Guidebook* will also be guidance about *Kindergarten Transition Practices*. As the technical support occurs across the year, the team may also develop other strategies and initiatives based on emerging needs.

3. Kindergarten Guidebook - Science of Learning and Development in Practice

<u>Rationale</u>: A first step in realizing quality kindergarten is promoting SOLD, a broad body of knowledge regarding how young students learn and develop. SOLD is in direct, overlapping alignment with SOR, which specifically addresses how people learn to read and write; promoting SOLD includes all of the Department's existing SOR literacy initiatives. Important to SOLD and SOR alike is the notion that the brain is highly malleable - particularly in early childhood - and that genetic predispositions account for a very small percentage of students' developmental trajectories¹³ - which means that the experiences we provide, the quality teaching we enact, and the supportive contexts we foster are of outsized importance compared with students' initial abilities.

SOLD also tells us that while discrete domains are identified in the research on young students' growth and development, these constructs are *not* discrete in the brain. In other words, "Learning isn't 'academic' OR 'social and emotional' - students become increasingly capable of complex skills through the integration of their cognitive, social, and emotional development."¹⁴ Quality kindergarten embeds social, emotional, cognitive, and physical

¹³ Fischer, K. W., & Bidell, T. R. (2007). Dynamic development of action and thought. *Theoretical Models of Human Development, 1.* <u>https://doi.org/10.1002/9780470147658.chpsy0107</u>

¹⁴ TurnAroundUSA Center for Whole Child Education. (n/d). Turnaround for Children Toolbox. <u>https://turnaroundusa.org/toolbox/</u>

> development practices into delivering rigorous content area instruction with high-quality instructional materials, using developmentally appropriate practices, including play. Importantly, Board policies E-101 - *Whole Student Development* and 203-2 - *Developmentally-Appropriate Teaching Strategies* require students to have holistic learning opportunities in developmentally appropriate contexts, including play-based learning.

<u>Next Steps</u>: The Department will develop a *Kindergarten Guidebook -Science of Learning and Development in Practice* to introduce SOLD to the field, emphasizing developmentally appropriate, research-based practices that should occur daily in the quality kindergarten classroom. Further initiatives for professional learning will be explored to expand reach, particularly through the Kindergarten Sturdy Bridge Learning Community.

<u>Five-Year Reach</u>: All kindergarten teachers in the state are trained in SOLD and developmentally appropriate teaching strategies.

4. Academic and Social-Emotional Development Practices

<u>Rationale</u>: Though initial kindergarten readiness is only one element of the student's success in kindergarten and beyond, it is still important data with predictive power. The Ohio State University found that students' initial Language and Literacy scores on the *KReady* KEA (the Department's adopted KEA) were significantly predictive of students' later third-grade reading outcomes.¹⁵ In the same study, students' initial Mathematics scores were *also* found to be significantly predictive of students' later third-grade reading outcomes. For Language and Literacy, 74% of these students who were not Demonstrating Readiness at kindergarten entry scored below passing on later literacy achievement tests. In short, the Department's adopted KEA has strong predictive validity for identifying young students at risk of later academic difficulties, particularly reduced reading achievement.

As such, the Department will use the Kindergarten Sturdy Bridge Learning Community to explore the development of professional learning in Academic and Social Emotional Development Practices for guiding the provision and progress monitoring of interventions to students who are not Demonstrating Readiness in the identified domains of the KEA.

¹⁵ Justice, L., Koury, A., & Logan, J. (2019). Ohio's kindergarten readiness assessment: Does it forecast third-grade reading success? *Crane Center for Early Childhood Research and Policy & The Ohio State University*, 1-12. <u>https://crane.osu.edu/files/2020/01/Kindergarten-Readiness-Whitepaper_051619_SINGLES_WEB.pdf</u>

> <u>Next Steps</u>: The Department will develop a streamlined template and resources within the *Kindergarten Guidebook - Science of Learning and Development in Practice* for schools to enact Academic and Social Emotional Development Practices for entering kindergarteners who are not yet Demonstrating Readiness on the KEA. These will include recommendations for providing evidence-based interventions in response to students' demonstrated needs. Initiatives for roll-out and professional learning will be explored during the Kindergarten Sturdy Bridge Learning Community.

<u>Five-Year Reach</u>: All kindergarten teachers in the state are trained in SOLD and developmentally appropriate teaching strategies.

5. Kindergarten Transition Practices

<u>Rationale</u>: Kindergarten transition practices are a broad range of tasks and activities that are designed to support students and families with their entry into formal education. Common kindergarten transition practices include family and community outreach activities (e.g., banners posted outside of school advertising kindergarten registration), family communication practices upon registration (e.g., welcome flyers, home-school visits, kindergarten orientation), and in-school practices that support students as they adjust to the kindergarten environment (e.g., classroom community building, play-rich experiences, staggered starts).

A formal, large-scale study of transition practices found that transition practices have a "modest positive effect" on kindergarten students' academic achievement overall but that high-income students were more likely to demonstrate academic readiness already and that their end of year performance was not moderated by transition practices, while middle and low-income students were significantly impacted by the use of transition practices.¹⁶ Further, middle and low-income students were progressively more impacted by the increase in the number of transition practices used. However, the schools serving higher-income students were more likely to employ some of the transition practices, and schools serving lower-income students were less likely to implement the transition practices, despite the latter being the predominant benefactors of transition practices.

¹⁶ Schulting, A. B., Malone, P. S., & Dodge, K. A. (2005). The effect of school-based kindergarten transition policies and practices on child academic outcomes. *Developmental Psychology, 41*(6), 860-871. <u>https://doi.org/10.1037%2F0012-1649.41.6.860</u>

In the Department, transition practices are implemented (or not) at the school level, and a full picture of the number and type of transition practices employed from school to school is unknown. Given the heightened importance of transition practices for many schools serving students in low socioeconomic conditions, it will be important for the Department to examine whether and how high-quality transition practices are in effect from school and what state-level supports are needed to equitize students' transition experiences at every school.

<u>Next Steps</u>: The Department will develop a mechanism for determining the existing landscape of *Kindergarten Transition Practices* currently in place in Department schools. Guidance and support will be developed in response to these findings, including reference in the *Kindergarten Guidebook*.

<u>Five-Year Reach</u>: All schools with kindergarten classrooms in the state implement quality kindergarten transition practices.

Related Initiatives

The following are the Department's quality kindergarten initiatives within their respective focus areas:

1. Summer Start Kindergarten Transition Program

Rationale: In SY 2021-22, an analysis by Hawai'i P-20 indicated that, of the more than 11,000 kindergarteners enrolled during that calendar year, less than 50% had any formal early learning programming from birth to age 5. While high-quality, informal early learning is often enacted successfully within the family system during the first five years for many students in Hawai'i, it is also the case that many other students experience a lack of opportunity for early learning. Consequently, at kindergarten entry, many students have not had the opportunity to experience any formal learning, which increases their potential for stress and prolonged adjustment upon attending kindergarten.

To help mitigate these transition experiences for entering kindergarteners and to support families with the home-school connection, the Department has partnered with Hawai'i P-20 to provide Summer Start transition programming at participating schools, targeting students with little to no prior schooling experiences. This is a highly valued initiative amongst participant schools for its benefits to entering students. During this summer of 2023, it was also leveraged at some schools to support the administration of some of the KEA assessment items that required one-on-one testing. This opportunity was appreciated amongst the participant schools.

This summer, 2023, Summer Start was also piloted in a Kaiapuni classroom at Pū'ōhala School. The kumu Papa Mālaa'o at all Kaiapuni classrooms experience particularly unique kindergarten transitions, with many of their students not yet knowing 'Ōlelo Hawai'i at first entry into the classroom. Consequently, transition opportunities are distinctively important in the Kaiapuni medium.

<u>Next Steps</u>: This initiative was funded through Elementary and Secondary School Emergency Relief monies that will no longer be available after the implementation of Summer Start 2024. The Department will require additional, concentrated funding in the future to support this program, with the eventual goal of implementing universal Summer Start at each school site. For the upcoming Summer Start 2024, the Department will continue to allow participant schools to conduct some of the Direct Performance items from the KEA with students attending the program, with the understanding that the majority of time spent at Summer Start should focus on transition and adjustment experiences for the students.

2. ELA Standards Review

<u>Rationale</u>: One of the most powerful predictors of students' long-term academic achievement in both reading and mathematics is early and sustained mastery of oral language and vocabulary.¹⁷ Oral language and vocabulary facility even improves behavior and emotional regulation.¹⁸ In kindergarten, developing a large, robust oral vocabulary throughout the school day is absolutely imperative to students' overall well-being.

Complicating this is the fact that students' vocabulary volumes in early childhood vary widely, with differentials in the hundreds to thousands of known words.¹⁹ In the elementary school years, students learn an average of 2,000-3,000 words per year,²⁰ but students beginning school with smaller vocabularies are unlikely to catch up to their peers with "business-as-usual" instruction. To attempt to address this, one of the proposed revisions to ELA standards is to embed the vocabulary-related Language standards directly into the related Reading Informational and Reading Literature standards.

¹⁷ National Institute of Child Health and Human Development. (2000). *Report of the National Reading Panel: Teaching children to read.* National Institute of Child Health and Human Development.

https://www.nichd.nih.gov/sites/default/files/publications/pubs/nrp/Documents/report.pdf

 ¹⁸ Vaughn, B. E., Kopp, C. B., & Krakow, J. B. (1984). The emergence and consolidation of self-control from eighteen to thirty months of age: Normative trends and individual differences. *Child Development, 55,* 990-1004. <u>https://doi.org/10.2307/1130151</u>
 ¹⁹ Shipley, G. K., & McAfee, J. G. (2015). *Assessment in speech-language pathology: A resource manual (4th ed.).* Nelson

Education. ²⁰ Nagy, W. E., & Scott, J. A. (2000). Vocabulary processes. In M. L. Kamil, P. B. Mosenthal, P. D. Pearson, & R. Barr (Eds.), *Handbook of reading research* (3rd ed., pp. 269-284). Lawrence Erlbaum Associates Publishers.

Reading aloud and discussing text with students, along with direct vocabulary instruction, is strongly established as a highly effective intervention for students' vocabulary development and listening comprehension, building critical foundational knowledge for independent reading in the later grades.²¹ Our goal in embedding the vocabulary acquisition standards into the reading-focused standards is to elevate their critical importance as a kindergarten foundational skill.

The revised standards also feature clarification and specificity in the Foundational Skills standards, with more in-depth explanations of the print concepts, phonological awareness, phonics, and fluency standards that kindergarten students must meet to develop language and literacy proficiency.

<u>Next Steps</u>: The Department is finalizing the proposed standards for review and possible adoption by the Board of Education in April of 2024. The Department will launch related professional development initiatives and guidance documents pending adoption.

3. OCID-Sponsored Cohorts for LETRS

Rationale: Alongside the importance of SOLD is SOR, both of which must be elevated in the classroom to realize the goal of quality kindergarten. As detailed in the previous September 7, 2023 Board memo regarding early literacy, multiple cohorts of *LETRS* professional development are being conducted by OCID, the Office of Student Support Services, within select complex areas, and specific schools. To date, at least 500 educators have engaged in the LETRS training through the state-provided model, with even more educators reached by specific complex areas and schools.

LETRS is an especially important learning platform for teachers of young students who are still developing overall language proficiency and whose brains are especially malleable to early literacy instruction and intervention.²² The best intervention in reading difficulties is *prevention*, and providing quality kindergarten necessarily requires teachers to be proficient in structured literacy instruction for diverse young learners. LETRS is an ideal platform for

²¹ Lefebvre, P., Trudeau, N., & Sutton, A. (2011). Enhancing vocabulary, print awareness and phonological awareness through shared storybook reading with low-income preschoolers. *Journal of Early Childhood Literacy*, *11*(4), 453-479. <u>http://dx.doi.org/10.1177/1468798411416581</u>

²² Moats, L. C., & Tolman, C. A. Language essentials for teachers of reading and spelling (LETRS): Volume I. Lexia.

> promoting this learning, and the Department is invested in continuing these endeavors until all PK-3rd grade teachers are trained in SOR.

Next Steps

The Department is currently examining the most efficient mechanisms for ensuring that all PK-3rd grade teachers are thoroughly trained in SOR. This will include the continued provision of LETRS training and coaching, but the Department also wants to create a self-sustaining model. One possible avenue is the creation of a Department-specific SOR course set that is continuously available to all staff, particularly for onboarding new teachers, and could also be merged with efforts to disseminate SOLD.

Areas for Focus and Improvement

The Department will address Desired Outcome 1.1.1. - All entering kindergarten students are assessed for social, emotional, and academic readiness and provided necessary and timely support to develop foundational skills for learning - by attending to the following Focus Areas with their attendant Major Initiatives:

			Focus Areas					
1.	Assessment Landscape	2.	Instructional Landscape					
М	ajor Initiatives		Major Initiatives	Major Initiatives				
1.	KEA Implementation	2.	U.S. Department of Education Kindergarten Sturdy Bridge Learning Community	4.	Academic and Social Emotional Development Practices			
		3.	Kindergarten Guidebook - Science of Learning and Development in Practice	5.	Kindergarten Transition Practices			

Metrics	Metrics	Metrics				
# of students assessed with the adopted KEA	# of kindergarten teachers, leadership, and support staff receiving professional learning	# of schools implementing kindergarten transition practices				
# of students Emerging, Approaching, and Demonstrating Readiness	in SOLD (including SOR)					
Related Initiatives						
Summer Start Kindergarten Transition Program	ELA Standards Review	LETRS Cohorts				

An immediate area of improvement is optimizing the technological infrastructure provided by the JHU's *KReady System*. Given the unique position of Hawai'i as a single state educational agency and local educational agency, combined with the requirement to keep the assessment window continuously open to satisfy legislative requirements, the Department's use of the existing *KReady System* requires further consideration. OCID has already begun analyzing the technological stand up to make recommendations for streamlining rostering, data entry, and report generation for Year 2 of implementation. The goal is to reduce teacher time spent in data entry and increase the immediacy of individual report generation for administrator access. Collectively, however, Year 1 implementation of the KEA was a success due to the concentrated efforts within the tri-level system, and much was learned in order to improve implementation for Year 2 and beyond strategically.

What Support Can the Board Provide?

The Department is grateful for the Board's ongoing support for implementing the Strategic Plan. Specific to Desired Outcome 1.1.1., the Department respectfully suggests the Board's consideration of the following:

- Continue to support the development of the Kaiapuni KEA;
- Consider supporting practices informed by SOLD for meeting the five domains of early childhood as a critical element of developmentally appropriate practice in kindergarten, including play-based learning; and

• Continue to support SOR and structured literacy as necessary components of the instructional day.

Thank you for your continued support of public education.

HA:tu Attachment - Presentation Slides

c: Office of Curriculum and Instructional Design



HAWAI'I STATE DEPARTMENT OF EDUCATIONAttachmentOffice of Curriculum and Instructional Design

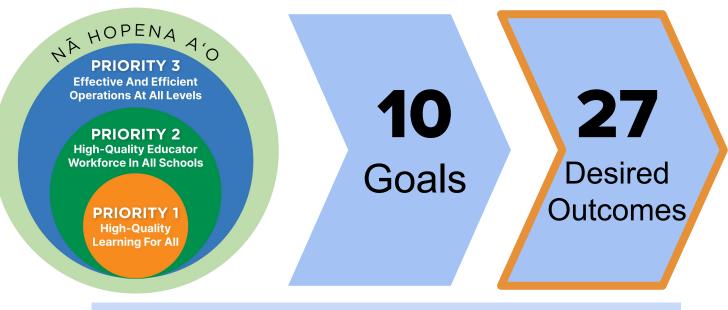
Review of Strategic Plan Desired Outcome 1.1.1: All entering kindergarten students are assessed for social, emotional, and academic readiness and provided necessary and timely support to develop foundational skills for learning.

Presented to the Hawai'i State Board of Education Student Achievement Committee December 7, 2023

Heidi Armstrong, Deputy Superintendent of Academics
Dr. Teri Ushijima, Assistant Superintendent, Office of Curriculum and Instructional Design
Dr. Lauren Padesky, Educational Specialist, Office of Curriculum and Instructional Design



Board of Education Strategic Plan



Visit **bit.ly/2023-29implementationplan** for more details and to read the full Implementation Plan.





Strategic Plan Implementation Plan



Priority I: High Quality Learning For All

Goal 1.1: All students experience rigorous, high-quality learning that results in equitable outcomes for all learners.

Desired Outcome 1.1.1. All entering kindergarten students are assessed for social, emotional, and academic readiness and provided necessary and timely support to develop foundational skills for learning.



Theory of Action

	When we:	Create a system for providing quality kindergarten to all students				
	Then:	We can collect and analyze data on students' developmental readiness, and provide infrastructure supports to schools and complex areas to respond to students' readiness needs				
	So that:	Teachers can create quality kindergarten environments that support students' foundational skills development across all domains of early learning				
		Focus Area #1	Kindergarten Entry Assessment (KEA) Implementation			
	Via these initiatives:	Focus Area #2	U.S. Department of Education Kindergarten Sturdy Bridge Learning Community			
			Kindergarten Guidebook - Science of Learning and Development in Practice Academic and Social Emotional Development Practices Kindergarten Transition Practices 			
		Metric #1	# of students assessed with the adopted KEA			
		Metric #2	# of students emerging, approaching and demonstrating readiness			
As meas by:	measured	Metric #3	# of kindergarten teachers, leadership and support staff receiving professional learning in the Science of Learning and Development (including the Science of Reading)			
		Metric #4	# of schools implementing kindergarten transition practices			





School Year 2023-24 KEA Outcomes Statewide, Total Kindergarten Enrollment to Date: 12,027

State	% Tested	Demonstrating 270-298	Approaching 258-269	Emerging 202-257	Language & Literacy	Mathematics	Social Foundations	Physical Development
State	85%	29.6% n = 3042	39.5% n = 4055	30.9% n = 3166	262.4	265.6	265.3	267.6

Total # of Students Assessed to Date: 10,260* Percent of Total Enrollment Assessed: 85%

*The total assessed excludes Kaiapuni students, students from Kamehameha III Elementary and Princess Nāhi'ena'ena Elementary, and students from charter schools that have a waiver. These students were not assessed.

Source: Ready for Kindergarten Assessment; Compiled from LEI Kūlia





School Year 2023-24 KEA Outcomes Public Charter Schools

Complex	% Tested	Demonstrating 270-298	Approaching 258-269	Emerging 202-257	Language & Literacy	Mathematics	Social Foundations	Physical Development
Charter Schools	47%	39.0% n = 148	38.4% n = 146	22.6% n = 86	267.8	270.8	274.4	272.8



Kaiapuni KEA Updates

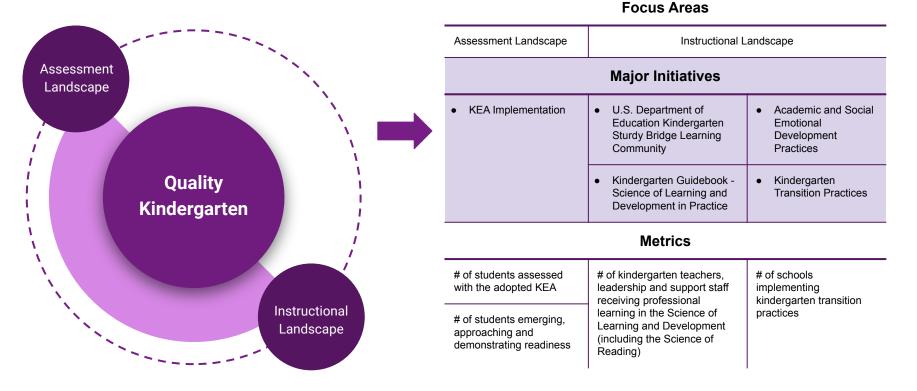


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2023-29 Implementation Plan

Major Initiatives

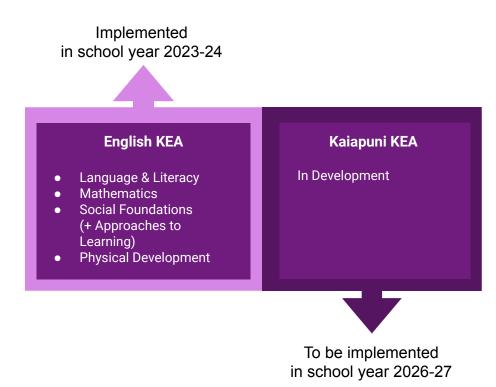




Assessment Landscape

Next Steps

- Item Development Kaiapuni KEA
- Implementation Improvements English KEA
 - Refining KReady rostering guidance for Year 2
 - Currently collecting feedback
 - Training additional data managers
 - Developing related guidance documents, resources, and professional learning opportunities (see Instructional Landscape)

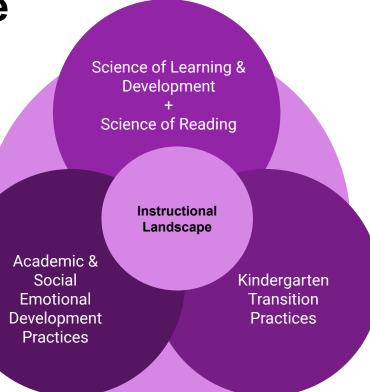




Instructional Landscape

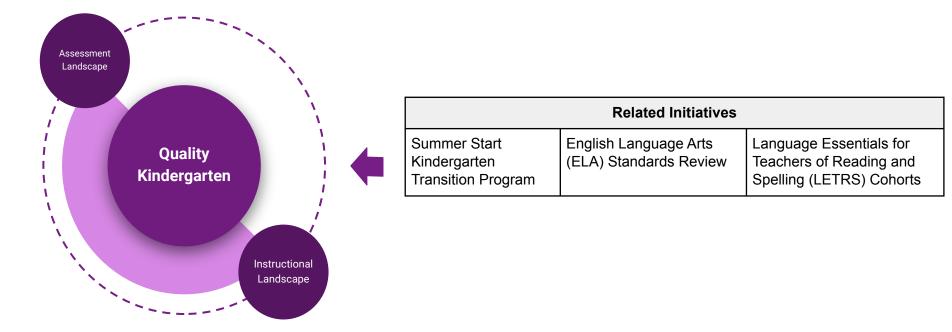
Next Steps

- Kindergarten Guidebook Science of Learning and Development in Practice
 - Academic and Social Emotional Development Practices
 - Embedded in Guidebook
 - Guidance and Professional Learning
 - Transition Practices
 - Research by School
 - Embedded in Guidebook
 - Guidance and Professional Learning





Related Initiatives





Summary and Next Steps

- KEA Data Analysis with early childhood partners
- English KEA Year 2 optimization, training, and infrastructure building
- Kaiapuni KEA item development and field testing
- Office of Curriculum and Instructional Design study of the Science of Learning and Development alongside the Science of Reading

	Focus Areas					
Assessment Landscape	Instructional Landscape					
Major Initiatives						
KEA Implementation	U.S. Department of Education Kindergarten Sturdy Bridge Learning Community	Academic and Social Emotional Development Practices				
	Kindergarten Guidebook - Science of Learning and Development in Practice	Kindergarten Transition Practices				
Metrics						
# of students assessed with the adopted KEA	# of kindergarten teachers, leadership and support staff receiving professional	# of schools implementing kindergarten transition practices				
# of students emerging, approaching and demonstrating readiness	learning in the Science of Learning and Development (including the Science of Reading)					
Related Initiatives						
Summer Start Kindergarten Transition Program	English Language Arts (ELA) Standards Review	Language Essentials for Teachers of Reading and Spelling (LETRS) Cohorts 12				

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What Support Can the Board Provide?

The Department is grateful for the Board's ongoing support for implementing the Strategic Plan. Specific to Desired Outcome 1.1.1., the Department respectfully suggests the Board's consideration of the following:

- Continue to support the development of the Kaiapuni KEA;
- Consider supporting practices informed by the Science of Learning and Development for meeting the five domains of early childhood as a critical element of developmentally appropriate practice in kindergarten, including play-based learning; and
- Continue to support the Science of Reading and structured literacy as necessary components of the instructional day.