INTERACTIVE INSTITUTE 2021
BUILDING AND SUSTAINING A CULTURE OF HIGH-QUALITY DATA

Uncovering the Story Behind the Data: Supporting Effective Data Analysis and Use

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IDC IDEA DATA CENTER
Collect, Report, Analyze, and Use High-Quality Part B Data

Westat®

Presenters

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Agenda

- Rationale for a data analysis and use process as part of a data-driven culture
- Custom solutions for specific needs
- State example: Hawaii

Intended Outcomes

- Understand the rationale for a structured data analysis and use process
- Become familiar with an example of a data analysis and use process
- Learn about a state's experience with a data analysis and use process

Data Analysis and Use Supports Building a Data Culture

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Why Is a Data Analysis and Use Process Helpful?

Why Is a Data Analysis and Use Process Helpful? (cont.)

- Builds capacity of staff to conduct a thorough exploration and meaning-making of the data
- Creates common practice and language among users
- Supports implementation across all levels of the system: state, regional, local

What Is Data-Driven Culture?

Definition

- "A data-driven culture is a workplace environment that employs a consistent, repeatable approach to tactical and strategic decisionmaking through emphatic and empirical data proof."*
- Put simply, an organization with a data-driven culture bases decisions on data, not gut instinct or anecdotal information

*Ramaswamy, P. (2015). Ramaswamy, P. (2015, September 29). 6 Steps to Creating a Data Culture That Will Help Your Company Survive and Thrive in this Digital Age. *Antill Magazine*. Retrieved from http://anthillonline.com/6-steps-to-creating-a-data-culture-that-will-help-your-company-survive-and-thrive-in-this-digital-age/.

What Is Data-Driven?

Definition

"To be data-driven requires an overarching data culture that couples a number of elements, including high-quality data, broad access and data literacy and appropriate data-driven decisionmaking processes."*

*Anderson, C., and Li, M. (2017). *Five building blocks of a data-driven culture*. Retrieved from https://techcrunch.com/2017/06/23/five-building-blocks-of-a-data-driven-culture/.

Building Blocks of Data-Driven Culture

- Single source of truth
- Data dictionary
- Broad data access
- Data literacy
- Decisionmaking

Anderson, C., and Li, M. (2017). *Five building blocks of a data-driven culture*. Retrieved from https://techcrunch.com/2017/06/23/five-building-blocks-of-a-data-driven-culture/.

Poll: How Do Your State Staff Model Characteristics of a Data Culture?

A. Incorporate data discussion in all your team meetings
(Results= 14% of respondents)

B. Share data regularly with stakeholders and provide opportunities to discuss
(Results= 8% of respondents)

C. Make decisions based on data
(Results= 28% of respondents)

D. Provide support for and build capacity for data literacy, use, and analysis
(Results= 14% of respondents)

E. Have documented processes for collecting and validating data
(Results= 36% of respondents)

Identifying Data Sources: Addressing Data Needs

Considerations

- What are your program or policy questions?
- What data do you need?
- What is the data source?
- Is the data of high-quality?
- How many years of data do you need?

Creating a Customized Solution

The Challenge

- Improving data literacy
- Building a foundation for a data culture
- Increasing data use
- Deepening root cause analysis
- Providing a process for data use that can be replicated easily
- Developing a structure to support facilitators in asking the right questions to improve engagement of participants

The Building Blocks

- *Data Meeting Toolkit*
- Root cause analysis process
- Data analysis and use plan

IDC *Data Meeting Toolkit*

- The *Data Meeting Toolkit* is a suite of tools that groups can use to guide conversation around data and support databased decisionmaking
- The toolkit provides resources to support success before, during, and after data meetings, including
  - A description of essential data meeting roles and responsibilities, including key stakeholders
  - A protocol of steps before, during, and after meetings to guide selection, analysis, and decisionmaking using data
  - Examples of how to use the toolkit to address a range of data meeting needs
  - Guidelines and editable templates for planning, facilitating, and documenting data meetings
  - Additional resources to support data use

Root Cause Analysis

- Requires spending time to identify the causes of the problem
  - Often multiple causes
  - Requires digging deeply to get to the root(s)
- Encourages systemic thinking
- Can eliminate wasted effort on patches that will not dissolve the roots
- Encourages reflection on current practices
- Provides rationale for strategy selection

Share Data Analysis and Use Process

Hawaii Example

Hawaii's Experience

- Hawaii State Department of Education (HIDOE) wanted to support users in conducting a deep exploration and root cause analysis of their own data
- HIDOE invited IDC to observe current practices and provide suggestions for deepening the process
- IDC recommended a structured process to support data analysis and use
- HIDOE decided to begin by having state staff use the process to examine SEA data

HIDOE's Story

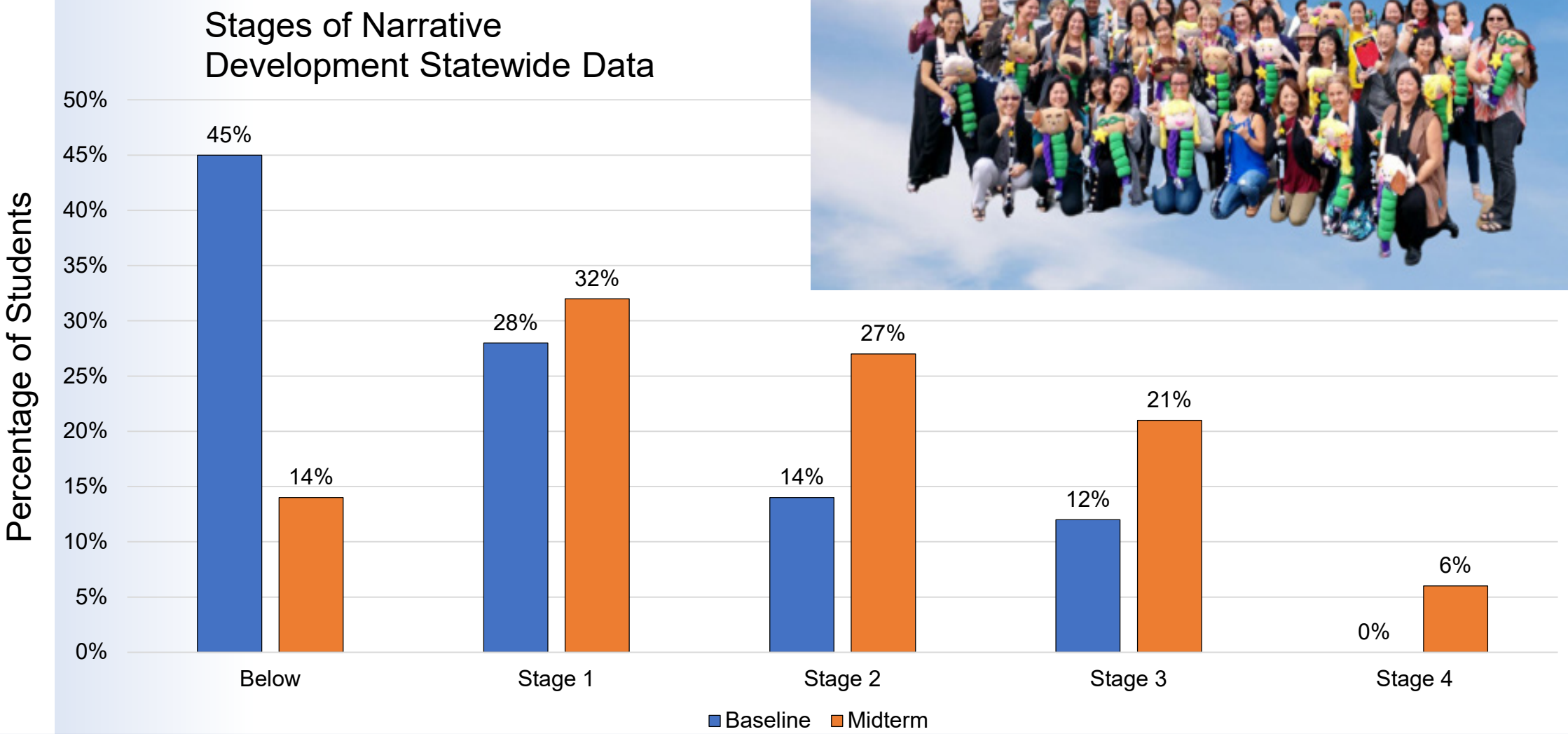
Outcome B: Acquisition and use of knowledge and skills (including early language communication)

Outcome data	2018–19	2016–17
Did not improve functioning	13%	11%
Improved functioning but not sufficient to move to nearer to functioning comparable to same age peers	17%	16%
Moved closer to a level nearer to the same age but did not reach it	22%	19%
Statewide total	52%	48%

91% of all preschool age children receive speech and language service

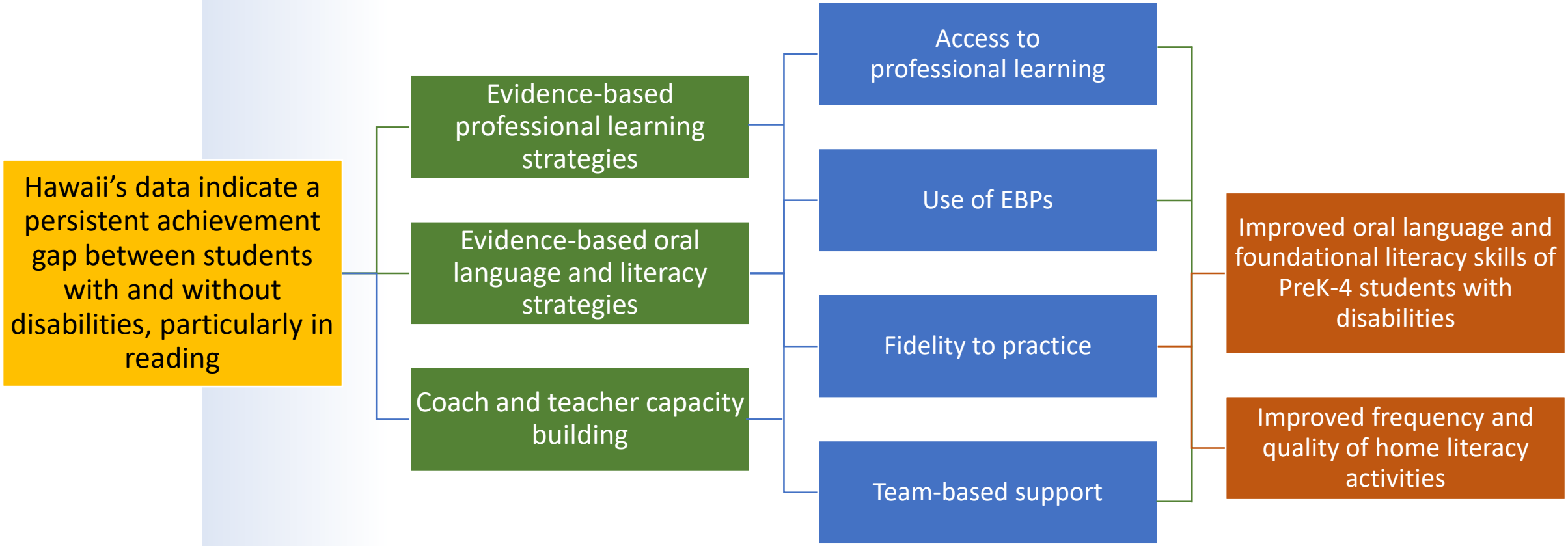
HIDOE eCSSS

Lessons Learned



Following the Process

Theory of Change



Evidence-based practices (EBPs)

Conceptual Model

Literacy Coaching Team (CT) [SLPs and resource teacher]	Acquisition of evidence- based professional learning strategies through university courses	Improved coaching skills in oral language and foundational literacy	Improved quality of coaching
Special education teachers	Acquisition of evidence- based literacy and oral language strategies taught with job embedded coaching through HI DOE PD courses	Improved teaching skills in oral language and foundational literacy	Improved quality of teaching
Students with disabilities PreK-4	Opportunities for frequent practice and feedback of oral language and literacy skills based on EBPs	Improved oral language and literacy of students with disabilities	Improved reading outcomes
Families	Enhanced home literacy and language use with their children through monthly activities	Increased home literacy activities and environment	

Speech Language Pathologists (SLPs), Professional development (PD)

Questions

Conclusion

- Having a standard data analysis and use process creates common language and practices across departments and between state and local educators and stakeholders
- In-depth data analysis is a critical feature of building a data culture and supporting continuous improvement

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For More Information

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