



# Theories of Action as a Tool for Developing and Implementing Balanced Assessment Systems

Nathan Dadey & Erika Landl\*

*The National Center for the Improvement of Educational Assessment*

May 11, 2021

Webinar #4 of the Webinar Series: *Developing and Implementing Balanced Assessment Systems to Support School Improvement and Student Learning*

*California Collaborative for Educational Excellence*

# Where have we been & where are we going?

## DEVELOPING AND IMPLEMENTING BALANCED ASSESSMENT SYSTEMS TO SUPPORT SCHOOL IMPROVEMENT AND STUDENT LEARNING

Facilitated by Scott Marion, Ph.D.  
Executive Director,  
Center for Assessment



**4/01** Introduction to Balanced Systems of Assessment

**4/13** The Critical Role of Curriculum and Learning Progressions in Balancing Assessment Systems

**4/20** The Components of Balanced Assessment Systems

**5/11** Theories of Action as a Tool for Developing & Implementing Balanced Assessment Systems

**5/27** Does it Quack Like a Duck? Would I Know a Balanced Assessment System if I Saw One?

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# Welcome & Introductions

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**Nathan Dadey**

[ndadey@nciea.org](mailto:ndadey@nciea.org)

@NathanDadey



**Erika Landl**

[elandl@nciea.org](mailto:elandl@nciea.org)

@elh2125

# Session Objectives

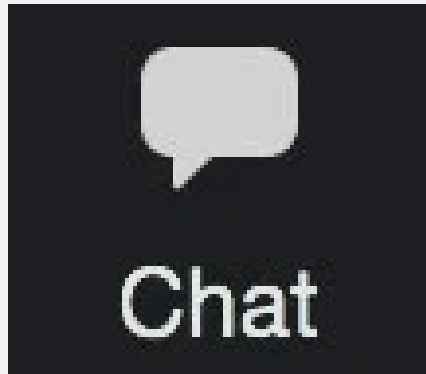
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1. Deepen **understanding of theories of action** in the context of **balanced assessment systems**
2. Reflect on some of the **key design decisions** that go into constructing and using theories of action for balanced assessment systems
3. **Illustrate those decisions** and their implications with an example
4. **Provide a template** that helps guide considerations of a balanced assessment systems and theories of action



This presentation provides:

- A **starting point** for considering theory of action, not an end point.
- **One way** to think about theory of action, not *the way*.

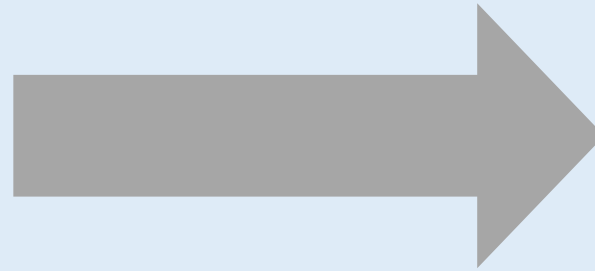


- Please use the chat to pose questions as we go along
- We'll do our best to address questions
  - As we go along in chat, and
  - At the end of each section

# 1. An Introduction to Theory of Action

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**How do we  
get there?**



Develop a  
**theory of action**  
to articulate the  
“how”.

**Current Situation**

Where are we now?

**Desired Situation**

Where do we want to be?



## Definition:

A theory of action outlines the **components of the system**, while clearly specifying the **connections among these components**. Most importantly, a theory of action must specify the **hypothesized mechanisms or processes for bringing about intended goals**...the theory of action should describe how the **particular clear goals** will be achieved as a result of the proposed...system(s).

*-Marion, Lyons & D'Brot (2016)*



For a deep dive in the context of general programs, see [Patton \(2008\)](#), particularly chapter 10.



A **logical argument** that connects the **goals** of a system to its **component parts**



By describing the **actions and conditions** that lead to the goals



as well as the **rationales, assumptions** and **evidence** that support and justify the connections within the system

# The Importance of a Theory of Action

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By making the **design of a system explicit**, a theory of action (TOA):



Acts as a roadmap for design and a touchstone for iterative design



Provides shared language & understanding



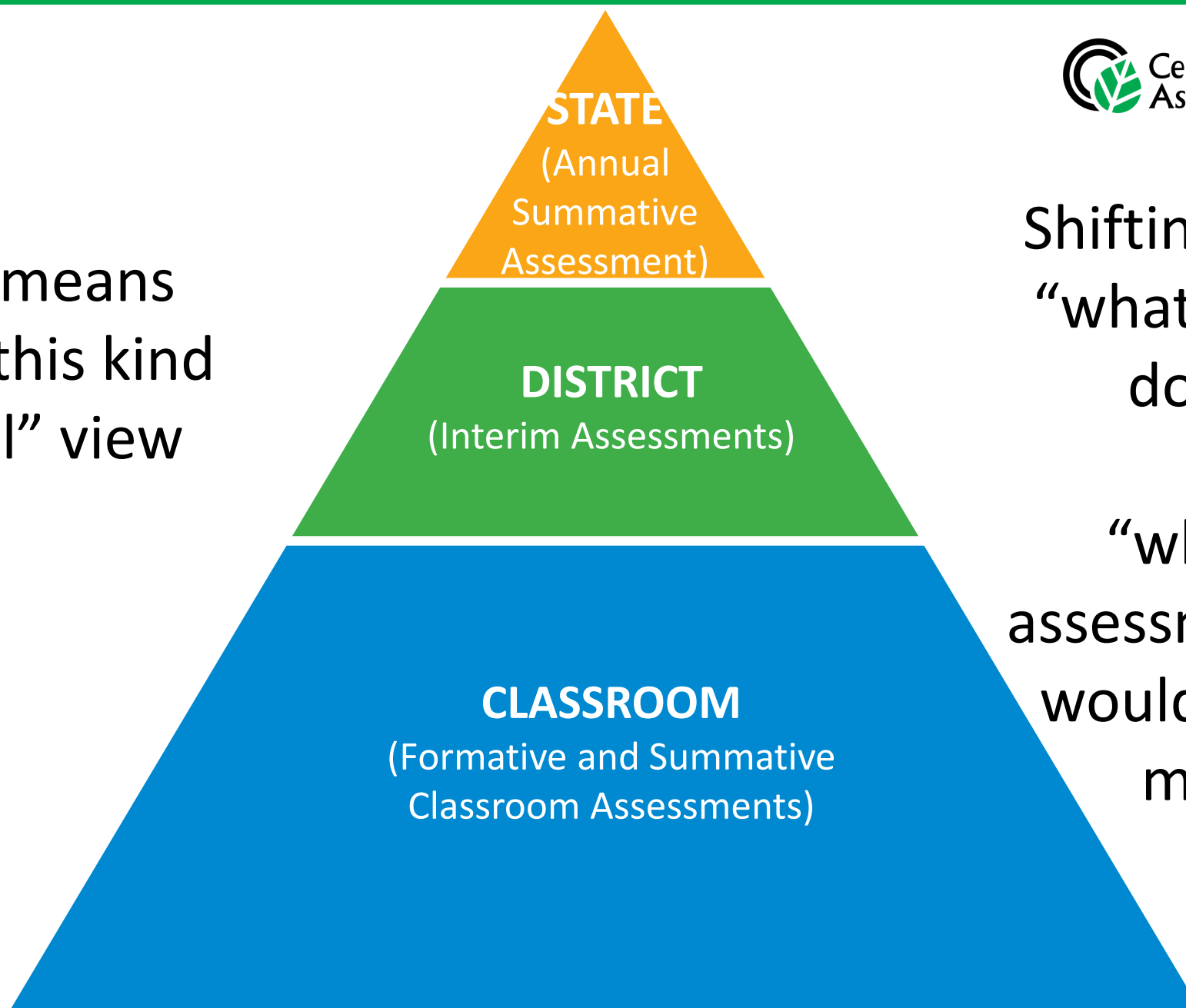
Supports the investigation of problem areas

So... what does this mean for a balanced assessment system?

It means we have to determine:  
what **problem(s)** we want to solve,  
**goals** based on these problems, and  
how the **use of assessment evidence** helps meet these goals.

And, since we never start from scratch, we have to examine  
each how evidence **from each assessment is used.**

Doing so means reframing this kind of “typical” view



Shifting from asking “what assessments do I need?” to “what uses of assessment evidence would help me meet my goals?”

# Levels

# Uses

**State.** Statewide Accountability Assessment



ESSA School Identification & Support

**District.** District-Wide Middle of Year Interim (e.g., Benchmark)

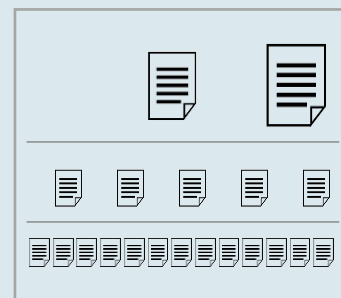


District Resource Allocation

**Classroom.** End of Unit & Mid-Unit Check in Assessments, Weekly Exit Tickets, Daily Conversations



Instructional Unit



Instructional Unit

Formative Assessment Cycle for Tailored Instruction

**Quarter 1**

**Quarter 2**

**Quarter 3**

**Quarter 4**

# Levels

# Uses

State. Statewide Accountability Assessment



ESSA School Identification & Support

District. District-Wide Middle of Year Interim (e.g., Benchmark)

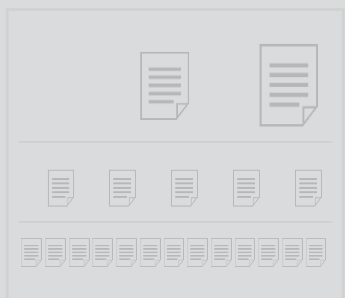


District Resource Allocation

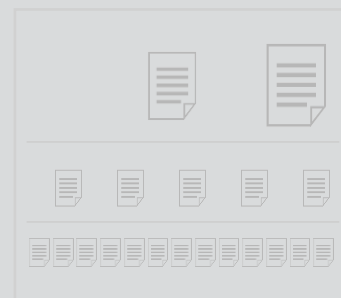
Which levels are part of our balanced

Classroom assessment system?

End of Unit & Mid-Unit Check In Assessments, Weekly Exit Tickets, Daily Conversations



Instructional Unit



Instructional Unit

Formative Assessment Cycle for Tailored Instruction

Quarter 1

Quarter 2

Quarter 3

Quarter 4

# Uses

ESSA School  
Identification &  
Support

District Resource  
Allocation

Formative  
Assessment Cycle  
for Tailored  
Instruction

- **Unbalanced systems are usually a result of unbalanced uses**
    - E.g., when the assessments used at one level are completely separate from those at other levels
  - Moving towards a more balanced system involves developing a TOA that not only considers the
    - use of assessment evidence in relation to the goals,
- But also the
- **relationships** across levels of assessment.



# Uses

ESSA School  
Identification &  
Support

District Resource  
Allocation

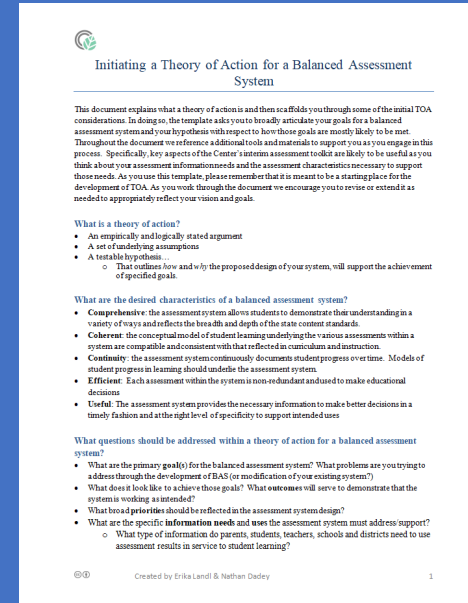
Formative  
Assessment Cycle  
for Tailored  
Instruction



## Need Assessment Evidence & Use of Evidence

## User

Within the template,



we start with  
*how it should be.*

# Some Implications

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- Each assessment within a system typically has its own **“baggage”** around use, which can be explicit or implicit
  - Each level generally has pre-existing assessments that need to be considered – we never start from a blank assessment slate.
- Use of assessment evidence and theories of action are **interconnected**
  - Making a decision about one has implications for the other. Iteration is often needed.
- An assessment might be of high quality, but if it does not **fit the theory of action**, it’s use will likely not result in the intended outcomes.

# How to Achieve “Balance”?

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- How do you determine what needs to change in order to bring your system into “balance”?
- How do you know what assessments should be included in your assessment system?
- What does it even look like to meet these criteria?

**It depends** on a variety of factors tied your goals for the system, your vision regarding the role of assessment in teaching and learning and the type of data that assessments need to provide to different stakeholders to support that role.

# What do I need to change?

## Some Different Focal Areas for Creating a “Balanced” Assessment System

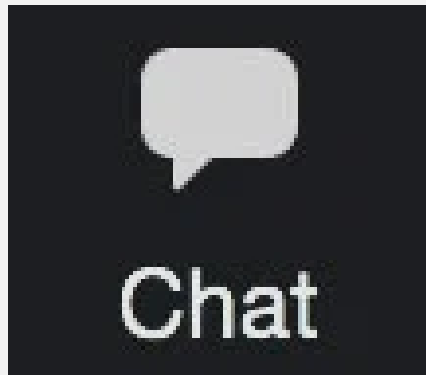
Focal Area	Problem to be Addressed	Supporting Balance
Level of Influence	State assessment holds too much weight in directing teaching and learning	district, school, classroom, student assessments
Academic content areas	Minimal attention to content areas other than ELA, math, science	Social studies, art, music, health, CTE, etc.
Format/Construct	Assessments do not promote deeper learning	Thick performance, “deeper learning”
Alignment	Poor alignment between assessments and curriculum/instruction –with respect to what is assessed and when information is needed.	Higher quality assessments provided or identified by state
Control	Minimal autonomy afforded to students supporting own learning/monitoring.	Internal, e.g., student choice/voice
Commonality	Common, standardized assessments do not appropriately reflect variability in teaching and learning	More flexible, more individualized
Theory of action	Overuse of assessments for accountability	Instruction, curriculum, etc.
Focus for reform	Assessment used as the impetus to drive reform efforts	Curriculum, school structures, etc.

# Looking to the Next Section

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The development of a balanced assessment system starts with the development of a *draft* overall theory of action, and

Developing a theory of action starts with clearly identifying the goals of the system and the **problem(s) to be solved**.



Any questions? We'll take a few minutes to address questions, starting with questions from chat, but please take yourself off mute and ask away!

## 2. Developing a Theory of Action

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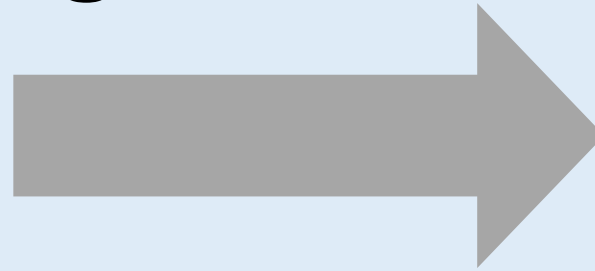
# My Theory of Action – In Brief

What issues need to be addressed to move me toward my desired situation?

**Current Situation**

Where are we now?

**How do we  
get there?**



**Desired Situation**

Where do we want to be?

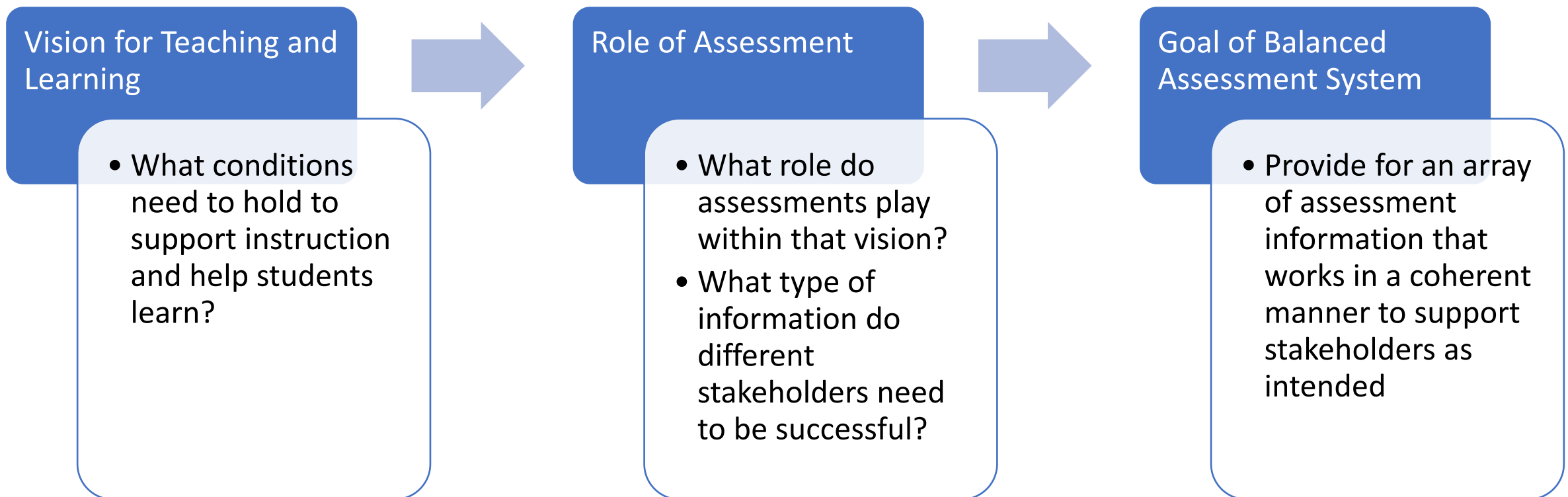
A balanced assessment system will help by

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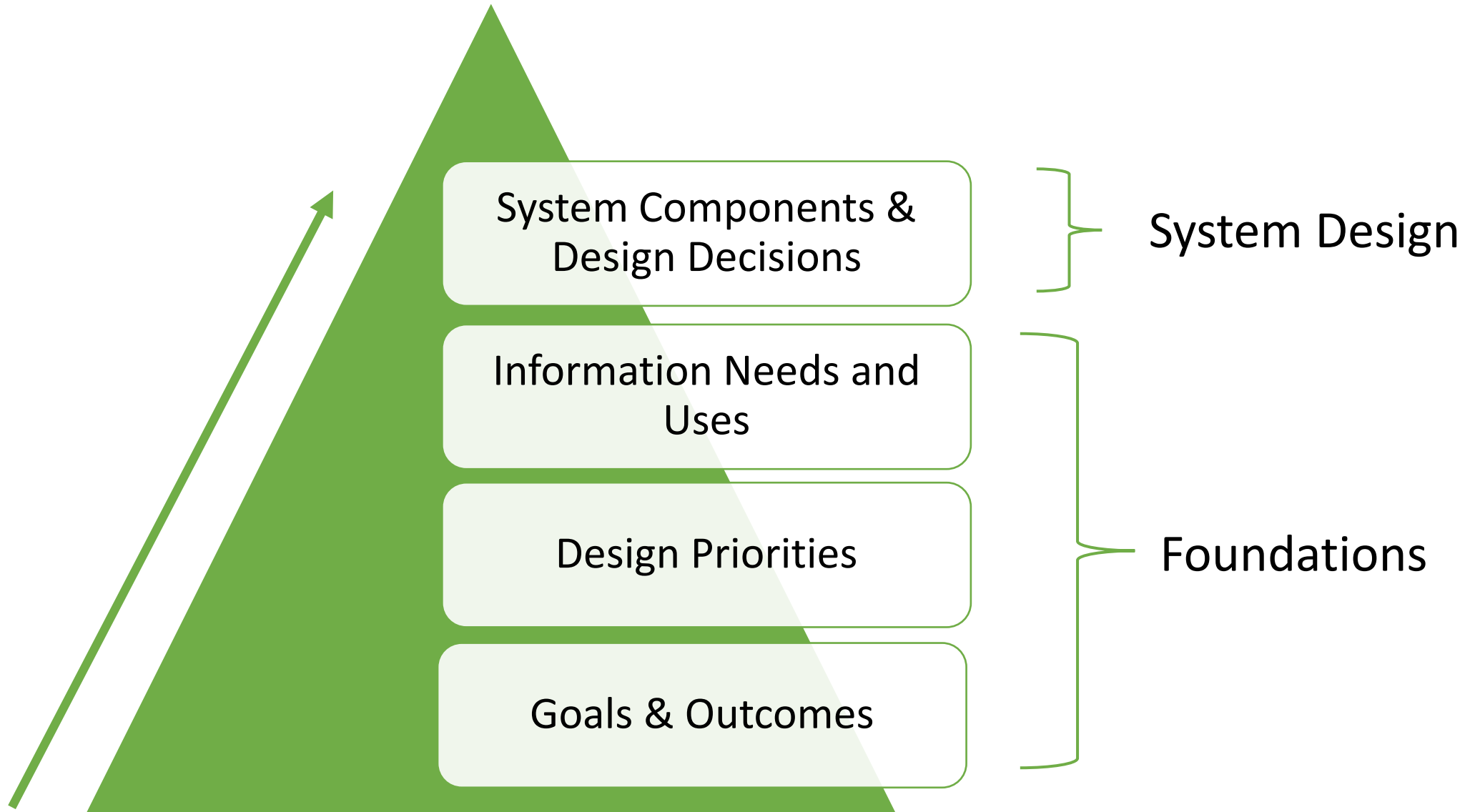



# How do you Start?

TOA begins with a clear definition of the goals for your balanced assessment system.



# Theory of Action: Moving From Vision to Design





## Initiating a Theory of Action for a Balanced Assessment System

This document explains what a theory of action is and then scaffolds you through some of the initial TOA considerations. In doing so, the template asks you to broadly articulate your goals for a balanced assessment system and your hypothesis with respect to how those goals are mostly likely to be met. Throughout the document we reference additional tools and materials to support you as you engage in this process. Specifically, key aspects of the Center's interim assessment toolkit are likely to be useful as you think about your assessment information needs and the assessment characteristics necessary to support those needs. As you use this template, please remember that it is meant to be a starting place for the development of TOA. As you work through the document we encourage you to revise or extend it as needed to appropriately reflect your vision and goals.

### What is a theory of action?

- An empirically and logically stated argument
- A set of underlying assumptions
- A testable hypothesis...
  - That outlines *how* and *why* the proposed design of your system, will support the achievement of specified goals.

### What are the desired characteristics of a balanced assessment system?

- **Comprehensive:** the assessment system allows students to demonstrate their understanding in a variety of ways and reflects the breadth and depth of the state content standards.
- **Coherent:** the conceptual model of student learning underlying the various assessments within a system are compatible and consistent with that reflected in curriculum and instruction.
- **Continuity:** the assessment system continuously documents student progress over time. Models of student progress in learning should underlie the assessment system.
- **Efficient:** Each assessment within the system is non-redundant and used to make educational decisions
- **Useful:** The assessment system provides the necessary information to make better decisions in a timely fashion and at the right level of specificity to support intended uses

### What questions should be addressed within a theory of action for a balanced assessment system?

- What are the primary goal(s) for the balanced assessment system? What problems are you trying to address through the development of BAS (or modification of your existing system?)
- What does it look like to achieve those goals? What outcomes will serve to demonstrate that the system is working as intended?
- What broad priorities should be reflected in the assessment system design?
- What are the specific information needs and uses the assessment system must address/support?
  - What type of information do parents, students, teachers, schools and districts need to use assessment results in service to student learning?

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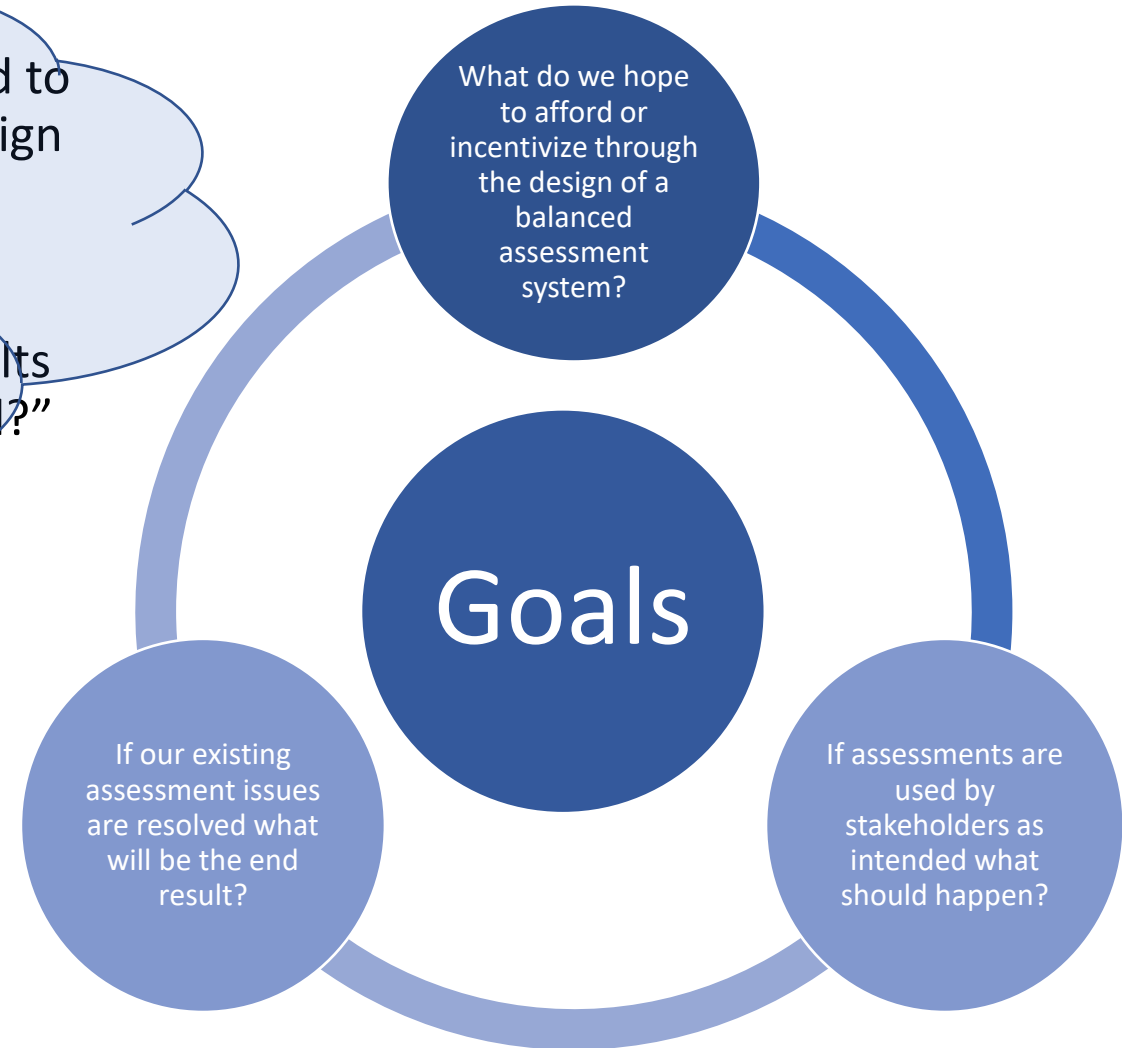
## 6 sections

- I. Goals
- II. Outcomes
- III. Design Priorities
- IV. Information Needs and Uses
- V. System Components
- VI. Conditions and Inputs

# Goals of the balanced assessment system

**Goal** statements describe what the system is intended to accomplish and are the driving force behind most design decisions.

**Outcomes** serve to answer the questions: “What results do I expect to see if the system is working as intended?”



# Articulating Goals and Outcomes



Assessments are not providing information of the type needed to help educators identify and address students' individual needs

Goal	Description
1	Provide for <b>more equitable outcomes</b> by increasing the quality and timeliness of assessment information

Goal	Short-Term* Outcomes Representing “On Track” Progress Toward Goal
1	Reductions in academic achievement gaps on state summative assessment

Assessments are too focused on lower level skills

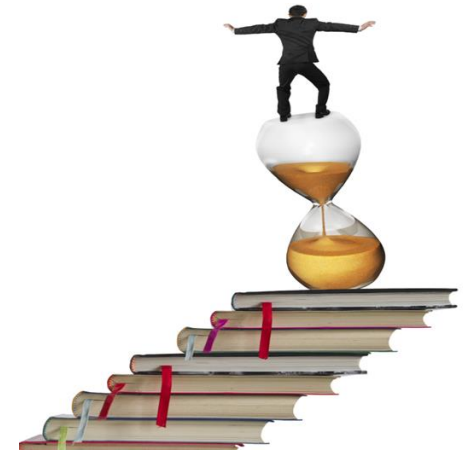
Goal	Description
2	Incentivize critical thinking or student transfer of knowledge skill.

Goal	Short-Term* Outcomes Representing “On Track” Progress Toward Goal
2	Inclusion of projects, capstone or other performance based requirements in curriculum.

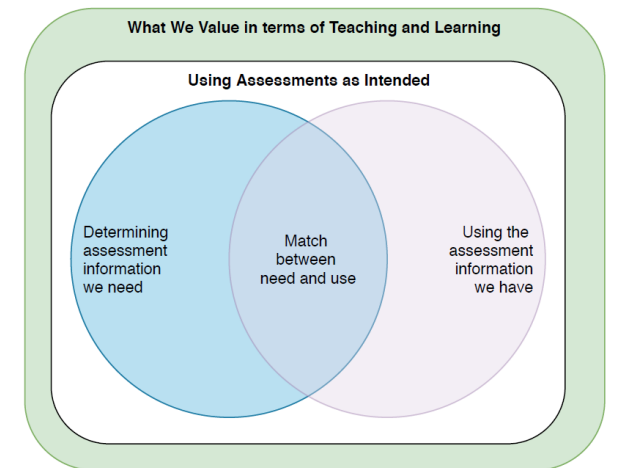
# How will we meet these goals?

1. Clarifying Design Priorities: the design features or mechanisms hypothesized as necessary to support the attainment of these goals.

2. Articulating the specific information needs and uses that will need to be addressed/ supported through the design of the system.



[Phase 1 of the Interim Assessment and Evaluation toolkit](#) (D'brot & Landl, 2019)



# Information Needs and Uses

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If **assessments are used as intended**  
what should happen?

- Have to define what is meant by “used as intended”
- Depends on your hypotheses for the type of information stakeholders need, the role of assessment in providing that information and how/when they need to interact with that information to support student learning.
- Essentially this is an informal summary of the role assessment within your theory of learning.

# Information Needs and Uses

**Activity for Part 1:** In each row of the table, briefly respond to each question about students, teachers, and principals. This will help you think about how assessment information can support those behaviors and needs in part 2. Please note that this is intentionally high level to help prompt your thinking around assessment needs.

If our vision for teaching and learning were actualized:	
Student	Generally, what does student success look like with regard to the knowledge and skills they should demonstrate? <i>For example: Specific content knowledge in math;</i>
	What are your overarching goals for them by the end of the year?
Teacher	How do you think a teacher best facilitates student learning? In practice, what does this look like? What do you think is most important for students to learn and teachers to teach? For example, what specific aspects of the curriculum are critical to helping students learn foundational concepts? More advanced concepts?
Principal	What should principals do to support high quality instruction?
Local Educational Leaders	What should district leaders do to support schools efforts to support teachers and students?
Others	Please add as many rows as necessary.

**Activity for Part 2:** In each row of the table, briefly respond to each question about what information from an assessment could help benefit them. The responses to the questions should be related to the response from Part 1. Please note that assessment information does not have to be the results of a test, but can include a process of gathering evidence.

What assessment information would be most helpful for each question?	
Student	<i>Consider your description of student success and how students learn.</i>
	Which kind of assessment information do students need given your vision for teaching and learning and why? How should students use assessment information given your vision for teaching and learning?
Teacher	<i>Consider your beliefs regarding how a teacher best facilitates student learning</i>
	What type(s) of assessment information do teachers need to facilitate student learning and why? How should teachers use each type of assessment information? (scores, student work, comparisons, informal observation) (remediation, regrouping)
Principal	<i>Consider what you believe principals should do to support high quality instruction.</i>
	What assessment information do principals need and why (e.g., support teachers)? How should principals use each type of assessment information?
Local Education Leaders	<i>Consider the behaviors you believe district leaders should engage in to facilitate teachers and students.</i>
	What assessment information do district leaders need and why? How should district leaders use each type of assessment information?
	<i>Others' needs and uses (please add as many rows as necessary)</i>
Others	

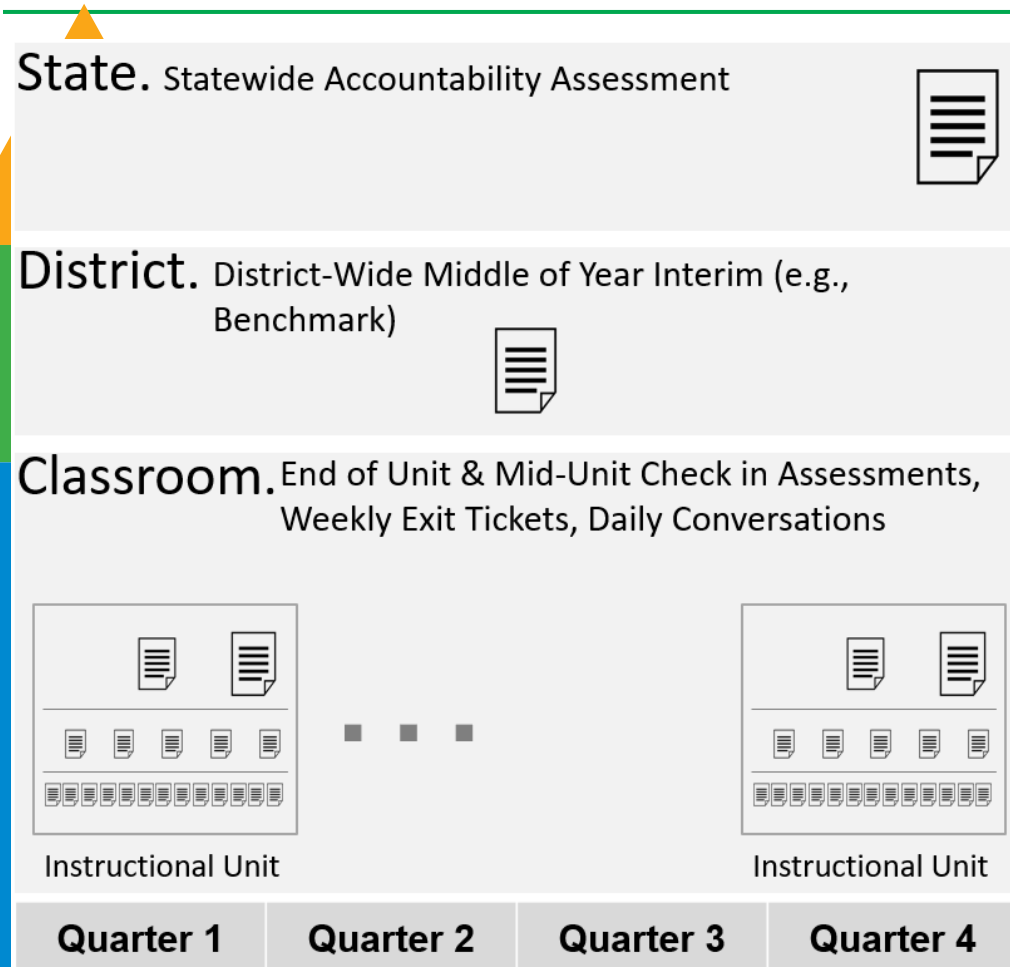
See pages 3-4 in [Phase 1 of the Interim Assessment and Evaluation toolkit](#) (D'brot & Landl, 2019)



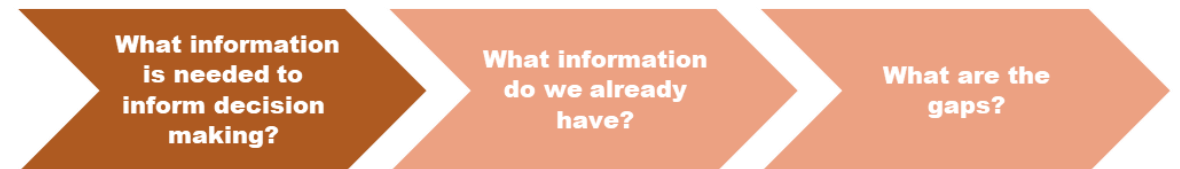
# Information Needs and Uses

Information Need/Use		User	Key Characteristics
1	The <b>district</b> needs data that can be used to monitor progress in closing academic achievement gaps at the district and school level	District Leaders	<ul style="list-style-type: none"> <li>○ Results are comparable across schools as well as within and across years.</li> <li>○ At a minimum the data should be collected once a year.</li> <li>○ Information should reflect student performance relative to content standards</li> </ul>
2	<b>Teachers</b> need detailed, timely information about students' ability to transfer concepts and skills that are the focus of instruction to novel, authentic settings.	Teachers	<ul style="list-style-type: none"> <li>• Frequent, aligned to curriculum and instruction</li> <li>• Clarifies students strengths and misconceptions</li> <li>• Requires transfer</li> </ul>
3	<b>Students/parents</b> need information that allow them to monitor progress toward attainment of end-of year learning goals and feedback that supports acceleration or remediation activities.	Student/parents	

# Identifying Sources of Information



- What sources/tools/processes will provide the needed information and support the intended use? How do you know?
- What already exists?



# Identifying Sources of Information

Information Need		Potential Source(s)	Rationale
1	The district needs data to monitor progress in closing academic achievement gaps at the district and school level	State summative assessment.  District-wide middle of year interim	Aligned to the state content standards. Allows for results to be compared across schools, students and years.  Same as above, provides for a mid-year evaluation of progress.
2	<b>Teachers need detailed, timely information about students' ability to transfer concepts and skills that are the focus of instruction to novel, authentic settings.</b>	Formal curriculum embedded classroom assessments (e.g., end of unit,  Brief Informal assessments developed and implemented by the teacher  District-Selected Commercial Interim Assessment (3-times a year)	<b>Provides timely information about student's understanding of knowledge and skills aligned to expectations defined in curriculum and instruction.</b>  <b>Allow educators to monitor the impact of instruction in the moment and pivot/remediate as needed.</b>  <b>Clarifies where students are with respect to their understanding in a content domain (ELA/Math) and provides educators with links to instructional resources.</b>

# Articulate & Interrogate Assumptions

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Types of assumptions:

1. **Component level:** assumptions you are making relative to how/why a particular source of information will meet your needs.
  - What is that assumption based on?
  - How do you confirm it?
2. **System Level:** assumptions you are making about how/why different sources of information will work together to support broader system goals.
  - What is this assumption based on?

# Identifying Sources of Information

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# Interrogating Assumptions

Assessments to “Inform Instruction”	Implications to be Addressed by TOA
Aimed at Learning	<ul style="list-style-type: none"> <li>• Must be appropriately granular to provide individualized , targeted support.</li> </ul>
Appropriately aligned with Instruction and remediation goals	<ul style="list-style-type: none"> <li>• Assessment should appropriately reflect the what when and how students are instructed (e.g., individualized)               <ul style="list-style-type: none"> <li>• A common assessment may not address the variable instructional techniques used in classroom</li> <li>• A commercial assessment may not appropriately reflect focus of curriculum and instruction or underlying theory of learning</li> </ul> </li> </ul>
Timely	The assessment must be administered to provide timely information that allows for appropriately targeted interventions
Adds value	Should provide unique, yet complementary information aligned to instructional learning goals.

# Conditions and Inputs

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What conditions or inputs are necessary to ensure that:

- your assumptions will hold?
- assessment information will be interpreted and used as intended?
- information will flow within and across levels of the system as hypothesized?

# Concluding Thoughts on Template

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- Tool to support brainstorming and facilitate coherence.
- Not likely granular enough to support you in thinking through all of your design decisions.
- Modify and extend as needed to support your planning and thinking.
- Please share your thoughts and comments with us so we can continue to improve this tool.





What questions do you have about the template or how to get started developing a theory of action? Please take yourself off mute and ask away!