



## *Webinar 4: Individualized Instruction & Assessment*

Optimizing Learning Opportunities  
for Students:  
A Tool for Practitioners to  
Individualize Instruction

# Goals for the Webinar

- Discover technological supports available for individualizing instruction
  - Assessment to Instruction (A2i) – Assessment, Grouping, and Lesson Planning
  - Optimizing Learning Opportunities for Students (OLOS) – Observation System
- Understand how these two systems work together
- Hear both researcher and practitioner perspectives on using these tools.



# Acknowledgements

Institute of Education Sciences Grant # R305N160050  
Optimizing Learning Opportunities for Students (OLOS)  
Early Learning Observation System

Dr. Carol Connor

Dr. Deborah Vandell

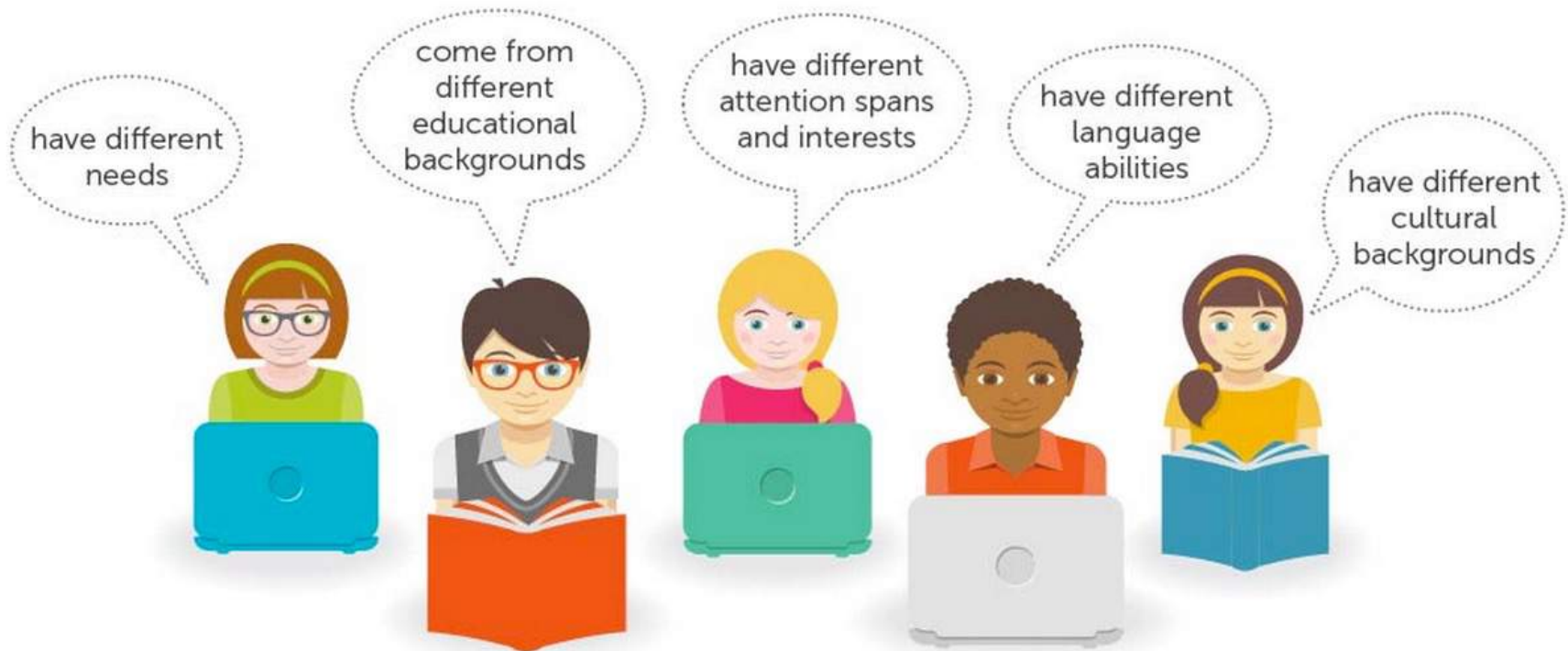
Individualizing Student Instruction Laboratory



# Defining Individualized Instruction

## WHY DIFFERENTIATED INSTRUCTION?

Classrooms are filled with students who:



# Assessment to Instruction (A2i)

- A professional support system for K-3 teachers
  - Embedded Assessments
  - Data-driven Instructional Recommendations
  - Aligned Lesson Plans
  - Customized Support



# A2i Assessments



Word Match Game



Letters2Meaning



Reading4Meaning

# Word Match Game (WMG)

Heather M

 Listen again

cat

tree

kitten

Pick the two words that go together!

Progress bar

Next →

# Letters 2 Meaning (L2M)

 Listen Again



f x s g b

Progress bar



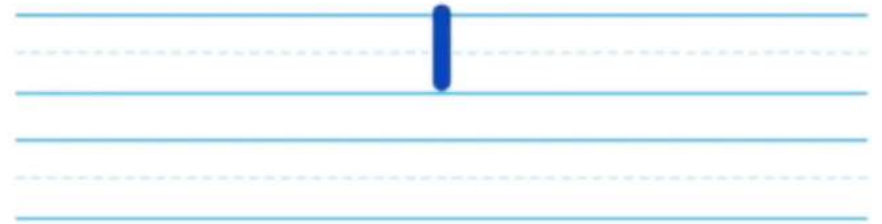


# Letters 2 Meaning (L2M)

 Listen Again



am happy.



Progress bar



# Reading 4 Meaning (R4M)



## Mangroves



Mangrove trees are common in South Florida. They grow in habitats where the soil is often covered by water. Most of the roots are below the soil but parts of the roots grow through and above the \_\_\_\_\_ [*water, soup, sugar, clouds*] up into the air. The roots hold the rest of the tree out of the water. All kinds of fish and other animals rely on mangroves for food.



# Theoretical Framework

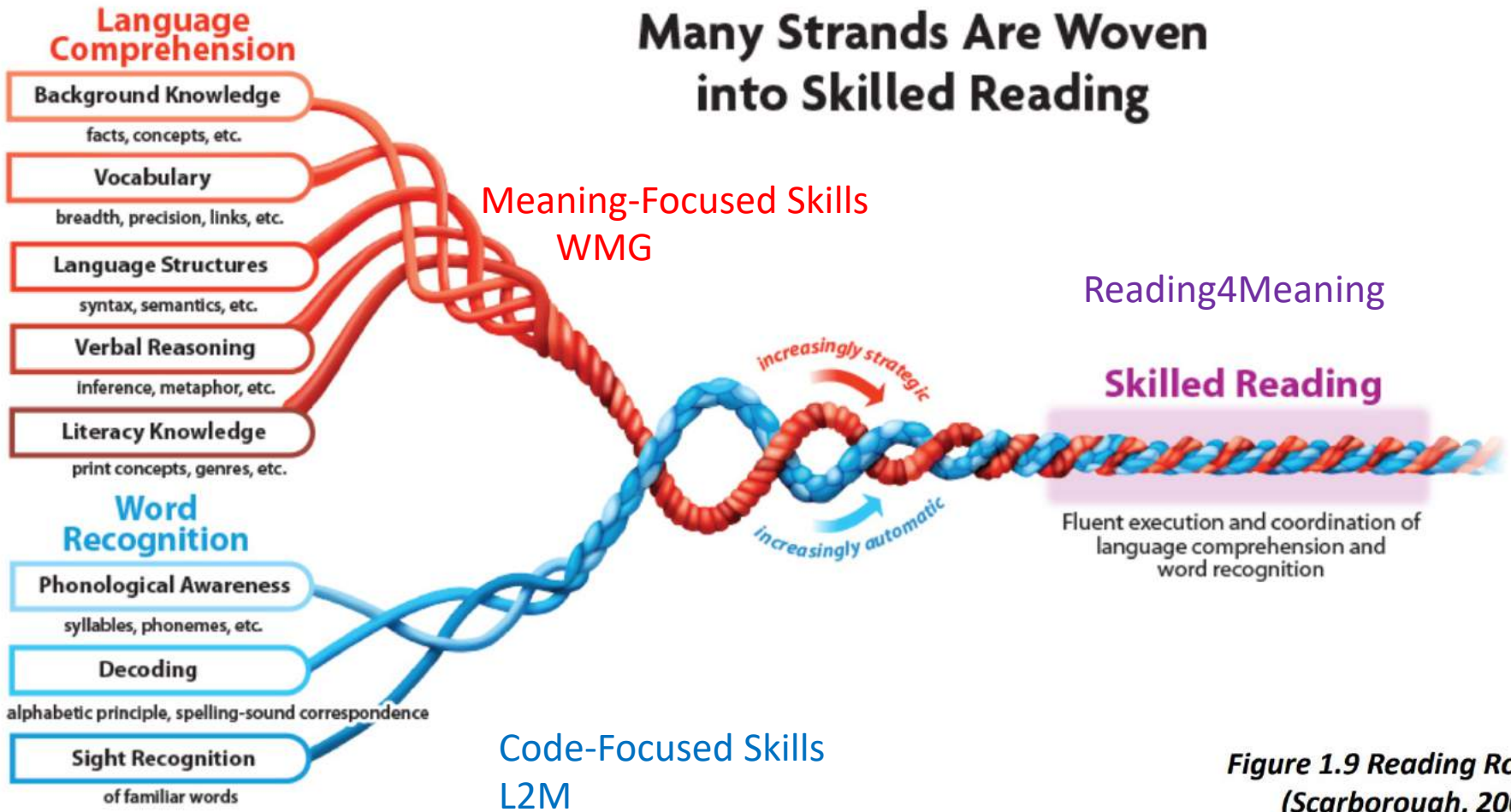
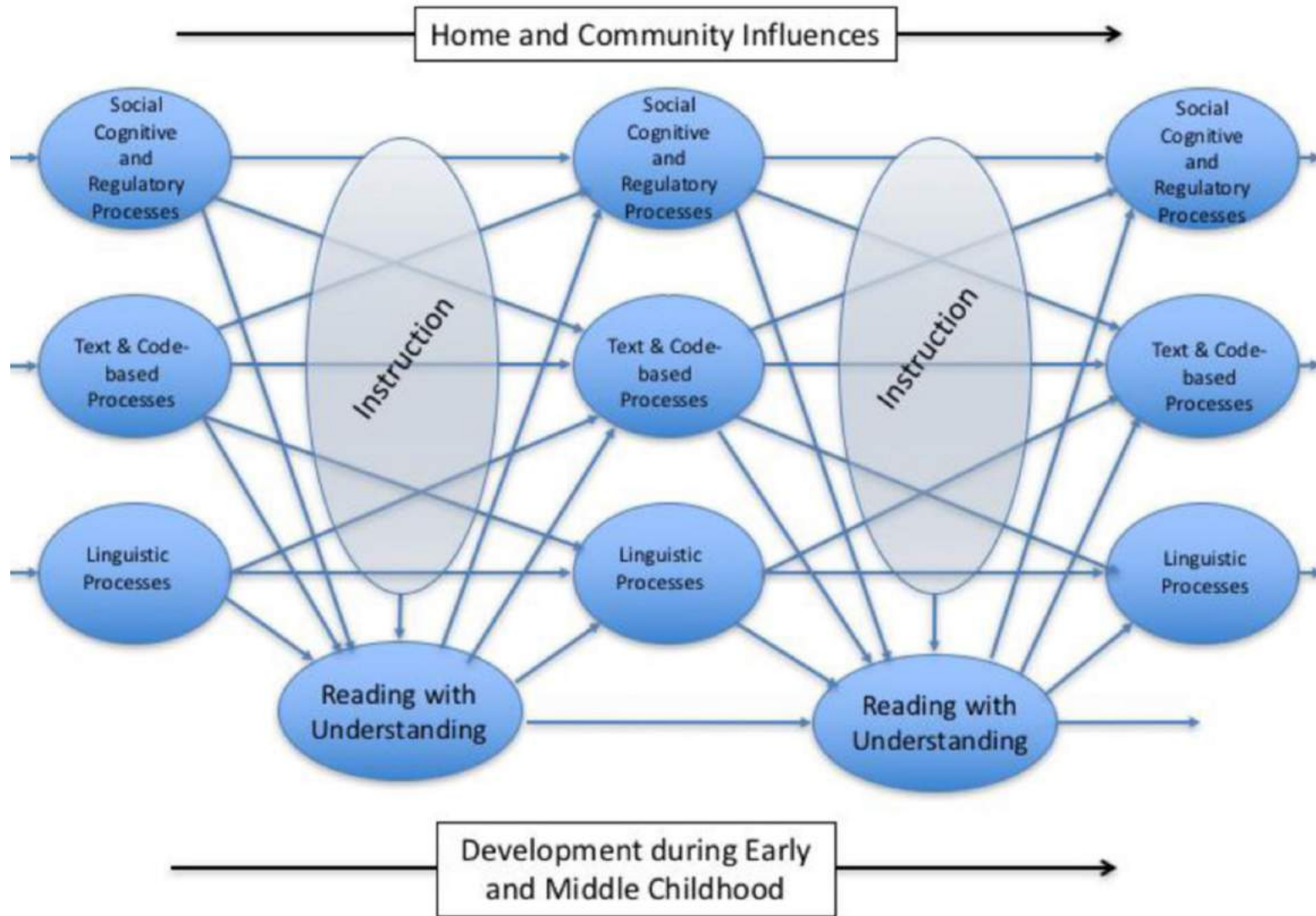


Figure 1.9 Reading Rope  
(Scarborough, 2001)

# Theoretical Framework



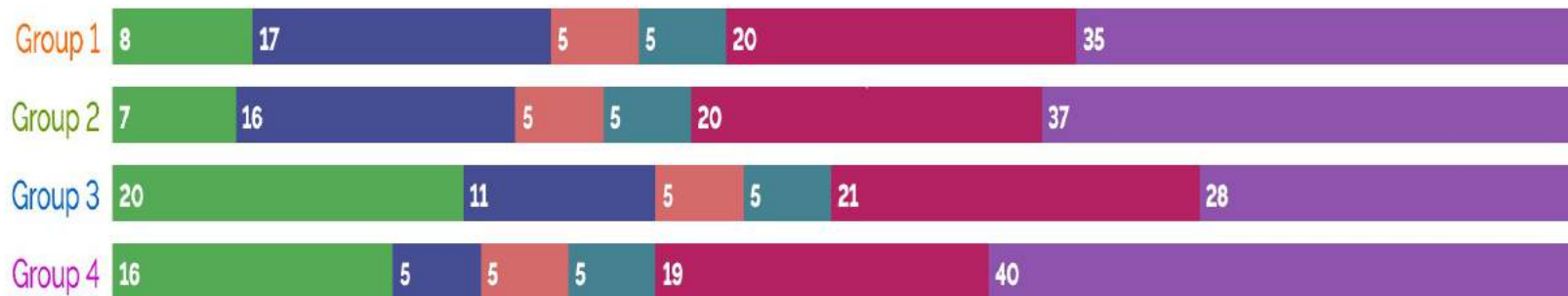
Connor, C. M. (2016). A lattice model of the development of reading comprehension *Child Development Perspectives*, 10(4), 269-274.

# Data-driven recommendations

Recommended minutes = 3.24 (WVG score) + 5.2 (L2M score) + 8.7 (R4M Score) -2.2

## DAILY RECOMMENDED GROUP MINUTES

Legend: TMMF TCMF CMMF CMCF Play Bonus MF



TM-MF=Teacher-Managed, Meaning-Focused

TM-CF=Teacher-Managed, Code-Focused

CM-MF=Child-Managed, Meaning-Focused

CM-CF= Child-Managed, Code-Focused



# Data-driven recommendations

Recommended minutes = 3.24 (WMG score) + 5.2 (L2M score) + 8.7 (R4M Score) - 2.2

## Group 1

	TEACHER MANAGED		CHILD MANAGED		Recommended	GROUP Actions
	Meaning-focused	Code-focused	Meaning-focused	Code-focused		
GaGa, Lady	14	26	22	27	Group 1 →	Student Actions ↓
Imahara, Grant	13	26	24	27	Group 1 →	Student Actions ↓
Kidman, Nicole	13	20	23	22	Group 1 →	Student Actions ↓
Pratt, Chris	11	19	28	23	Group 1 →	Student Actions ↓
<b>Group Minutes</b>	13	23	24	25		

## Group 4

	TEACHER MANAGED		CHILD MANAGED		Recommended	GROUP Actions
	Meaning-focused	Code-focused	Meaning-focused	Code-focused		
Fey, Tina	11	15	32	12	Group 4 →	Student Actions ↓
Jordan, Michael	14	17	25	5	Group 4 →	Student Actions ↓
Vonn, Lindsey	14	17	26	5	Group 4 →	Student Actions ↓
Winfrey, Oprah	17	18	29	5	Group 4 →	Student Actions ↓
<b>Group Minutes</b>	14	17	28	7		



District Demo District 1 School Learning Elementary Classroom Demo Grade 1 Reading Class

Les

Group 1 Vocabulary AE: 5.84 Decoding GE: 0.8 Comprehension GE: 0.8

Lesson Plan

← Previous week mm/dd/yyyy Go to date Next week →

Type	Monday 1/2/2017	Tuesday 1/3/2017	Wednesday 1/4/2017	Thursday 1/5/2017	Friday 1/6/2017
TM-MF 13 min/day	<input checked="" type="checkbox"/> FCRR Student Center Activities Grades K and 1: <b>Sentence-Picture Match</b> Unit 5 Page C.001 Core standard RL.K.3 Secondary standard Key Ideas and Details Duration 15 minutes Grade equivalent 0.9 <a href="#">View Activity</a>	<input type="checkbox"/> FCRR Student Center Activities Grades K and 1: <b>Chunking</b> Unit 3 Page F.014 Core standard RF.K.3.c Secondary standard Fluency Duration 20 minutes Grade equivalent 1.1 <a href="#">View Activity</a>	<input type="checkbox"/> FCRR Student Center Activities Grades K and 1: <b>Rereading Decodable Text</b> Unit 3 Page F.019 Core standard RF.K.3 Secondary standard Fluency Duration 20 minutes Grade equivalent 0.8 <a href="#">View Activity</a>	<input type="checkbox"/> FCRR Student Center Activities Grades K and 1: <b>Name That Story</b> Unit 5 Page C.002 Duration 15 minutes Grade equivalent 1.2	<input type="checkbox"/> FCRR Student Center Activities Grades K and 1: <b>Choose and Chat</b> Unit 4 Page V.007 Core standard L.K.5.c Secondary standard Vocabulary Acquisition and Use Duration 20 minutes Grade equivalent 1.3 <a href="#">View Activity</a>
TM-CF 22 min/day	<input checked="" type="checkbox"/> FCRR Student Center Activities Grades K and 1: <b>Silent "E" Changes</b> Unit 2 Page P.064 Core standard RF.K.3.b Secondary standard Phonics and Word Recognition Duration 20 minutes Grade equivalent 1.0 <a href="#">View Activity</a>	<input type="checkbox"/> FCRR Student Center Activities Grades K and 1: <b>Vowel Stars</b> Unit 2 Page P.069 Core standard RF.K.3.a Secondary standard Phonological Awareness Duration 20 minutes Grade equivalent 1.0 <a href="#">View Activity</a>	<input type="checkbox"/> FCRR Student Center Activities Grades K and 1: <b>Word Bowling</b> Unit 2 Page P.092 Core standard RF.K.3.c Secondary standard Phonics and Word Recognition Duration 25 minutes Grade equivalent 1.0 <a href="#">View Activity</a>	<input type="checkbox"/> FCRR Student Center Activities Grades K and 1: <b>Fast Match</b> Unit 3 Page F.009 Core standard RF.K.3.c Secondary standard Fluency Duration 10 minutes Grade equivalent 1.0 <a href="#">View Activity</a>	<input type="checkbox"/> FCRR Student Center Activities Grades K and 1: <b>Spin-A-Word</b> Unit 2 Page P.068 Duration 20 minutes Grade equivalent 0.9 <a href="#">View Activity</a>
CM-MF 30 min/day	<input checked="" type="checkbox"/> FCRR Student Center Activities Grades K and 1: <b>Sentence-Picture Match</b> Unit 5 Page C.001 Core standard RL.K.3 Secondary standard Key Ideas and Details Duration 15 minutes Grade equivalent 0.9 <a href="#">View Activity</a>	<input type="checkbox"/> FCRR Student Center Activities Grades K and 1: <b>Chunking</b> Unit 3 Page F.014 Core standard RF.K.3.c Secondary standard Fluency Duration 20 minutes Grade equivalent 1.1 <a href="#">View Activity</a>	<input type="checkbox"/> FCRR Student Center Activities Grades K and 1: <b>Rereading Decodable Text</b> Unit 3 Page F.019 Core standard RF.K.3 Secondary standard Fluency Duration 20 minutes Grade equivalent 0.8 <a href="#">View Activity</a>	<input type="checkbox"/> FCRR Student Center Activities Grades K and 1: <b>Name That Story</b> Unit 5 Page C.002 Duration 15 minutes Grade equivalent 1.2	<input type="checkbox"/> FCRR Student Center Activities Grades K and 1: <b>Choose and Chat</b> Unit 4 Page V.007 Core standard L.K.5.c Secondary standard Vocabulary Acquisition and Use Duration 20 minutes Grade equivalent 1.3 <a href="#">View Activity</a>
CM-CF 25 min/day	<input checked="" type="checkbox"/> FCRR Student Center Activities Grades K and 1: <b>Word Bowling</b> Unit 2 Page P.092 Core standard RF.K.3.c	<input type="checkbox"/> FCRR Student Center Activities Grades K and 1: <b>Silent "E" Changes</b> Unit 2 Page P.064 Core standard RF.K.3.b	<input type="checkbox"/> FCRR Student Center Activities Grades 2 and 3: <b>Rhyme or No Rhyme</b> Unit 1 Page PA.001 Core standard RF.K.3.c	<input type="checkbox"/> FCRR Student Center Activities Grades K and 1: <b>Vowel Stars</b> Unit 2 Page P.069 Core standard RF.K.3.c	<input type="checkbox"/> FCRR Student Center Activities Grades K and 1: <b>Fast Match</b> Unit 3 Page F.009 Core standard RF.K.3.c

Group

- Teacher 12 minutes
- Teacher 17 minutes
- Child-M 36 minutes
- Child-M 19 minutes

Activities

Activities

Activities

Activities



# Customized Support

- Literacy Outcomes Specialist
- Implementation Planning
- 1:1 support and coaching for teachers
  - How close are teachers getting to hitting the recommended minutes for each child?







## Assessment Team Mission

*To create a classroom observation tool to be used by practitioners to assess preschool and early elementary school classroom elements that are predictive of later learning and school achievement*



# Updates to A2i during ELN

- Due to focus on early learners
  - Refinement of PreK algorithms
  - Incorporation of Play into the recommendations
  - Development of an observation system that could capture important instruction and student/teacher talk in PreK-3<sup>rd</sup> grade



# What is OLOS?

- An observation system that can capture the classroom experiences of individual children in the same classroom
- Focus on students
- Designed to be used for and by practitioners with a focus on providing actionable information for teachers to support individualized instruction



# Optimizing Learning Opportunities for Students (OLOS) - Students

**Philip DemoK**

Is on task  Is off task

**Content Area**

Literacy  Math  Other  Non-Inst

**Context**

WC  SmG  Indiv

Teacher  Peers  Alone

**Instruction Type**

CF  MF  Play

**Moves**

Non-verbal responding  Verbal response to question  Reading text/problems aloud

Answering questions that require reasoning  Asking on-topic questions  Using text to justify a response  Participating in a discussion

Voicing a disagreement

In a challenging social situation, uses words to resolve issue  Moves away from difficult social situations



# Optimizing Learning Opportunities for Students (OLOS) - Students

**George Washington**

Is on task  Is off task

**Content Area**

Literacy  Math  Other  Non-Inst

**Context**

WC  SmG  Individ

Teacher  Peers  Alone

**Instruction Type**

CF  MF

**Moves**

Non-verbal responding	Verbal response to question	Reading text/problems aloud	
Answering questions that require reasoning	Asking on-topic questions	Using text to justify a response	Participating in a discussion
Voicing a disagreement			
In a challenging social situation, uses words to resolve issue		Moves away from difficult social situations	



# Optimizing Learning Opportunities for Students (OLOS) - Teacher

**OLOS Demo**  
Content Area

Literacy	Math	Other ▾	Non-instruction
----------	------	---------	-----------------

Context

WC	SmG	Indiv
----	-----	-------

Teacher

Peers	Alone
-------	-------

Instruction Type

CF	MF	Play
----	----	------

Moves

Invites students to share information	Summarizes or synthesizes students' responses	Expresses interest in students' responses	
Explains topic-specific concepts	Provides background information with facts or informative content		
Directs students to use evidence and explanation to support answers	Challenges students to reason or draw conclusions	Asks follow-up questions to gain additional information or clarify an idea	Encouraging students to make connections to self or other text or problem
Handles disruptions quickly and efficiently	Redirects student misbehavior in positive way	Uses a positive behavior management strategy	Smooth and orderly transition between classroom activities



# Optimizing Learning Opportunities for Students (OLOS) - Teacher

**OLOS Demo**  
Content Area

Literacy	Math	Other ▾	Non-instruction
----------	------	---------	-----------------

Context

WC	SmG	Indiv
Teacher	Peers	Alone

Instruction Type

CF	MF	Play
----	----	------

Moves

Invites students to share information	Summarizes or synthesizes students' responses	Expresses interest in students' responses	
Explains topic-specific concepts	Provides background information with facts or informative content		
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# OLOS Online Training

Home

Modules

Discussions

Announcements 

Rubrics 

Assignments 

Grades 

Outcomes 

Quizzes 

Conferences 

Collaborations 

Pages 

Files 

People 

Syllabus 

Settings

## OLOS Reliability Training

 Edit



### Navigating this Course - START HERE



### Welcome to The OLOS Coding System!



1 Intro to module

Optimizing Learning Opportunities for Students (OLOS)

UCI Training Module

Watch on  YouTube

 Copy link

 OLOS observations  
Observations, Assessment, Opportunities for Students  
University of California, Irvine

OLOS is designed to be a practitioner friendly observation system that relies on technology to make practical, and reliable, careful observation of individual students participating in learning activities. OLOS has been designed as a professional development tool to improve teaching and classroom practices. Focusing primarily on language, literacy, and mathematics instruction, OLOS captures the content of the learning opportunity, students' participation in the learning opportunity, and teachers' moves that facilitate effective opportunities to learn for individual children. The system also includes more global assessments of the quality of the learning environment and structural aspects of the classroom.





# Training and Certification Process

DURATION: **81.5%**

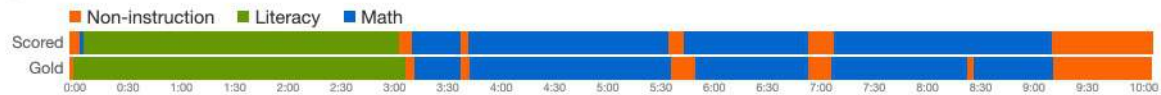
Score

Student 1 **81.5%**

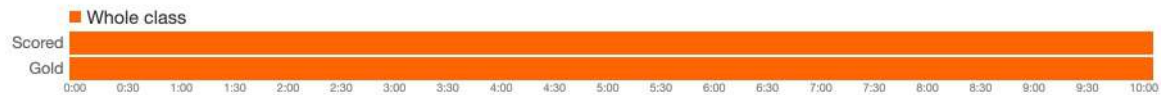
## DURATION CODE TIMELINES

### STUDENT 1

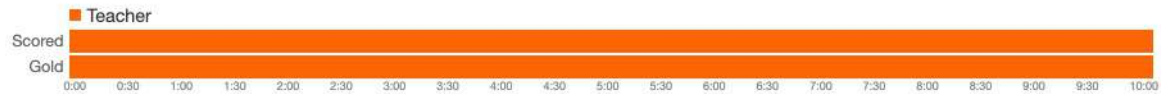
Content



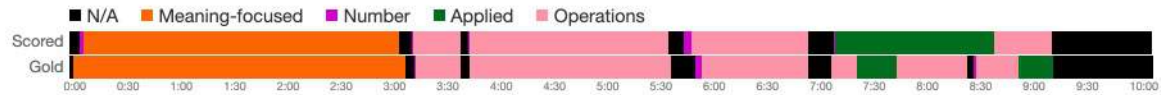
Context



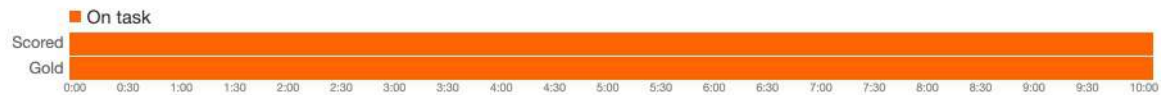
Management



Instruction Type



Behavior



# OLOS Teacher Dashboard

## Teacher Moves

Observed Occurrences

Navigate

Overview

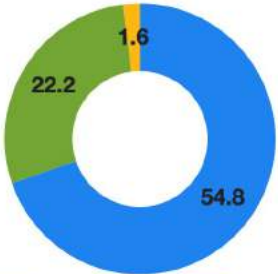
### OBSERVATION OVERVIEW

### What Your Data Means

These graphs give a summary of the types of instruction that were observed in your classroom as well as the context in which that instruction was given. You can also see the kinds of talk you and your students participated in during the observation.

#### Content

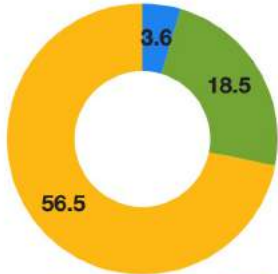
Minutes Observed



Literacy Non-instruction Socioemotional Learning

#### Context

Minutes Observed



Individual Small group Whole class

M

management strategy	2
Smooth and orderly transition between classroom activities	2



# OLOS Teacher Dashboard

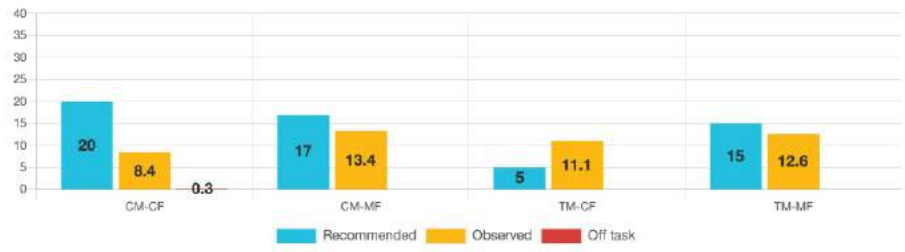
Glossary

Navigate

## STUDENT DETAILS:

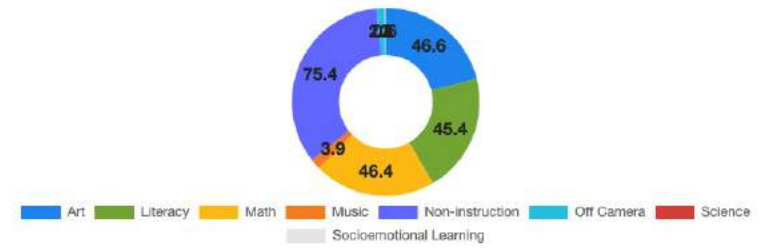
### Distance from Recommendation

Minutes of Instruction



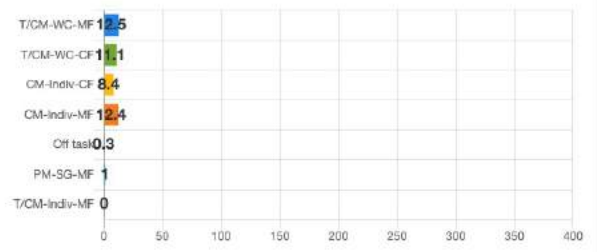
### Content

Minutes Observed



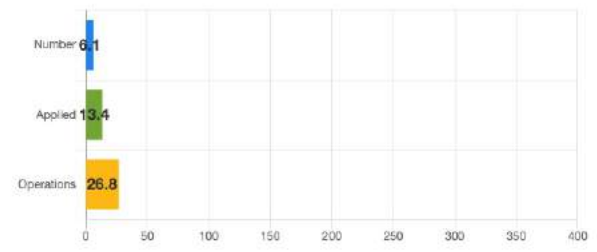
### Literacy

Minutes Observed



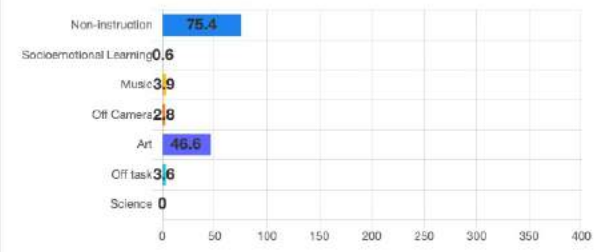
### Math

Minutes Observed



### Other

Minutes Observed





Let's hear from a  
practitioner!

# Questions for our practitioner

- What are the most useful elements of A2i?
- Where is A2i currently being implemented?
- What do practitioners find most useful about OLOS for individualizing instruction?
- What part of the day would you choose to observe to make the information most useful for the teacher?



# Power of OLOS in the ELN

- 4000 unique observations of students in nearly 200 classrooms in 7 different states
- How much code- and meaning-focused instruction/math/non-instruction is happening in each grade?
- Are there differences among sites?
- Are there systematic differences in the classroom experiences of children from different demographic groups?
- Which elements captured by OLOS are most predictive of children's literacy, math, and social-emotional growth across the school year?



# Putting it all together

- A2i provides the assessment and recommendations to teachers to allow for planning of individualized instruction
- The lesson planning tool allows teachers to choose activities that align with the recommended minutes
- OLOS is an observation tool that can track children's individual experiences in classrooms
- When OLOS is used alongside A2i, it can give teachers powerful information about the extent to which individualized instruction is meeting each child's instructional needs



# What I didn't get to tell you

- Math
- English language learners

 @AAdamsSanabria

[aadams2@sdsu.edu](mailto:aadams2@sdsu.edu)

Learningovations.com





# Q&A

- **What questions do you have?**
  - *Put them in the Zoom Q&A box*
  - *Post them in the comments section of our Facebook Live video*  
[@earlylearningnetwork](#)



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# Thank You

*The Early Learning Network is funded by the Institute of Education Sciences.*

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# Evidence

**Table 1**

Summary of Randomized Controlled Trials Supporting the Efficacy of ISI/A2i

Study Citation	Study Years	Grade	% of students qualifying for the National School Lunch Program (NSLP)	Effect size ( <i>d</i> ) on standardized tests of letter-word reading or reading comprehension
<a href="#">Connor et al., 2007</a>	2005–2006	First Grade	57%	0.25
<a href="#">Connor et al., 2011</a>	2006–2007	First Grade	45%	0.50
<a href="#">Al Otaiba et al., 2011</a>	2007–2008	Kindergarten	60%	0.52
<a href="#">Connor, Morrison, et al., 2011</a>	2008–2009	Third Grade	47%	0.20
<a href="#">Connor et al., 2013</a>	2008–2009	First Grade	39–59%	0.32
<a href="#">Connor et al., 2013</a>	2009–2010	Second Grade	39–59%	0.44
<a href="#">Connor et al., 2013</a>	2010–2011	Third Grade	39–59%	0.25
<a href="#">Connor et al., 2013</a>	2008–2011 cumulative	First–Third Grade		0.76

