

Implementing RTI in Secondary Schools

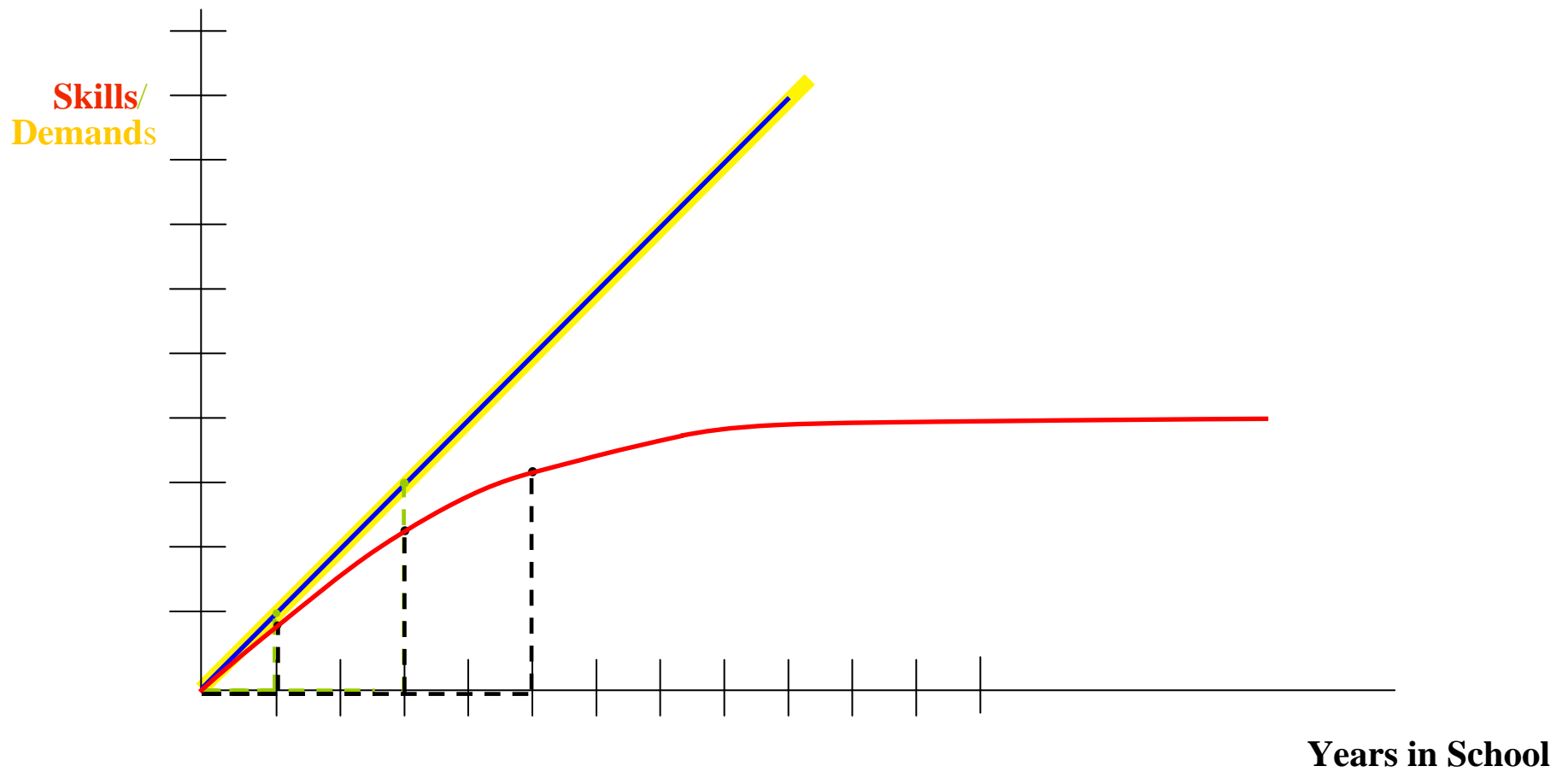


Don Deshler
University of Kansas
Center for Research on Learning

SIG/SPDG Directors' Webinar
October 16, 2008

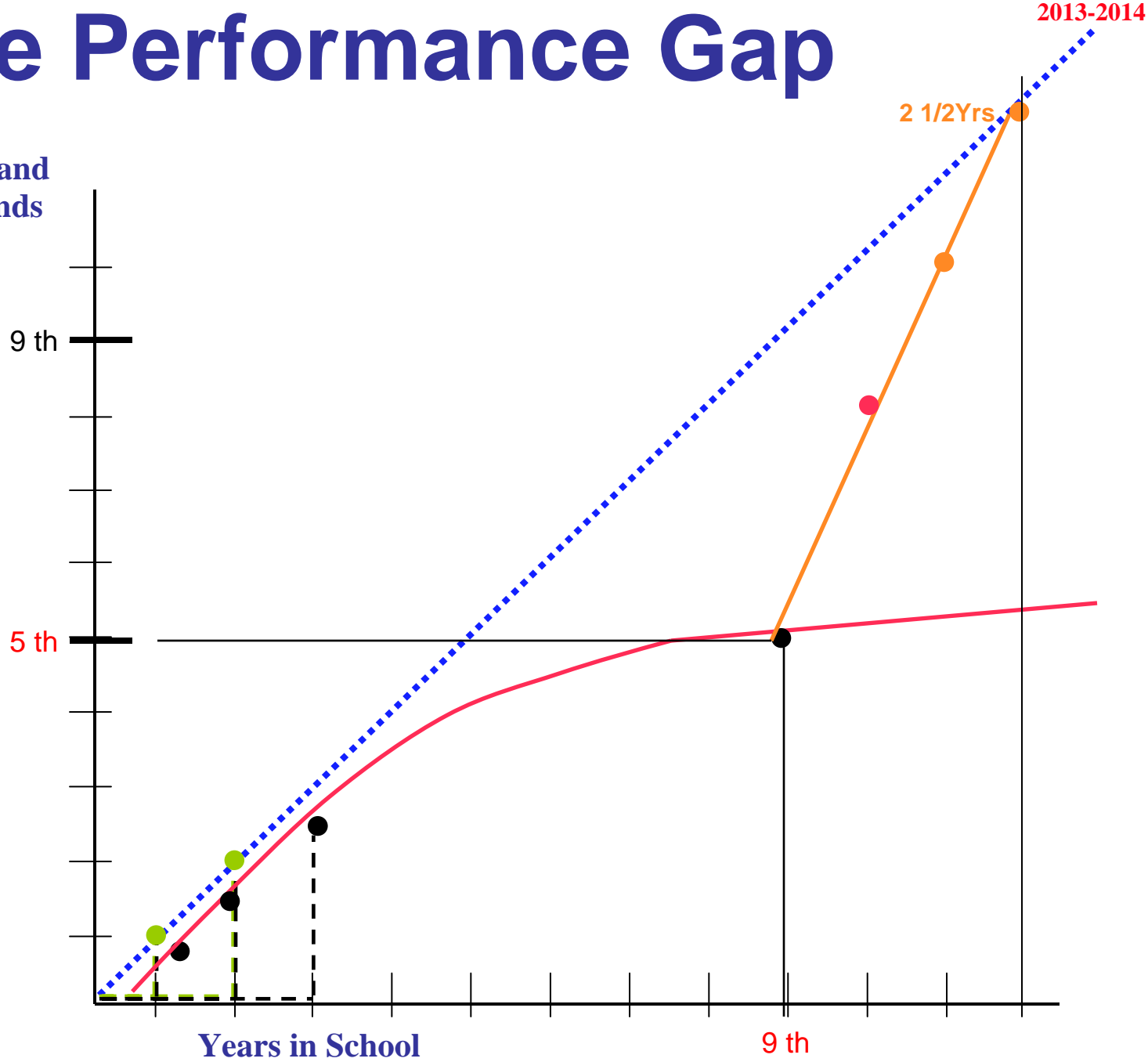
Setting the Stage

The Performance Gap

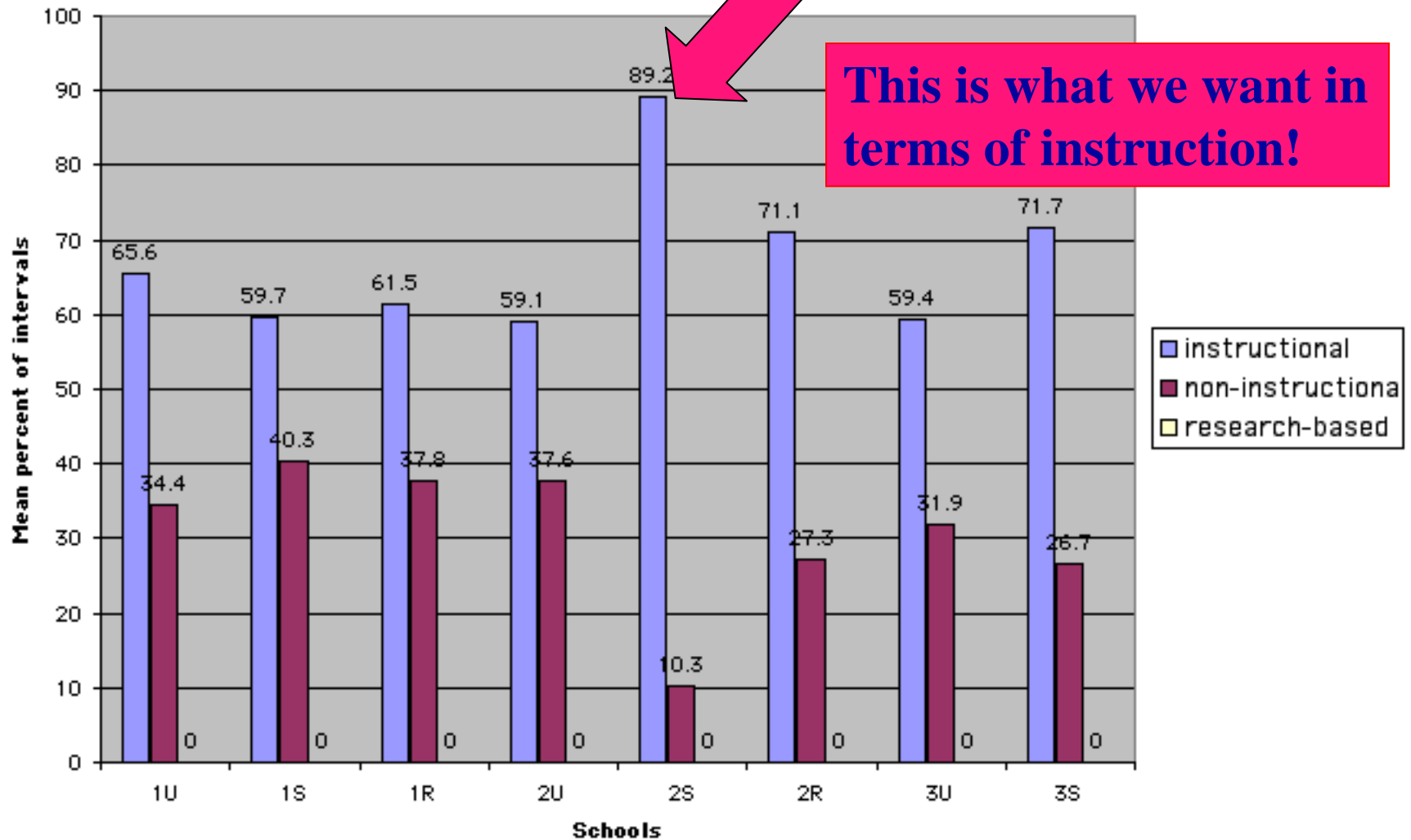


The Performance Gap

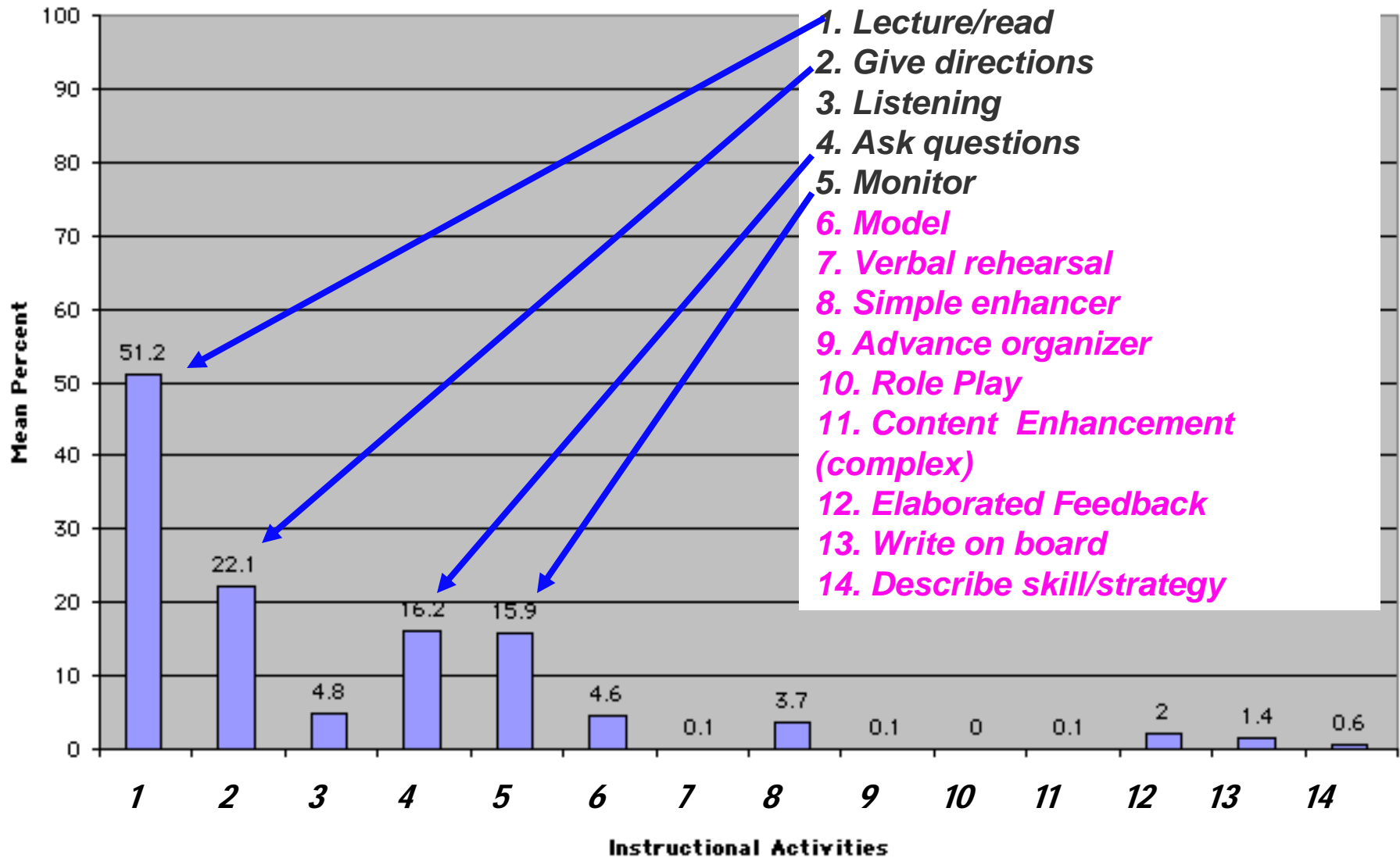
Skills and Demands



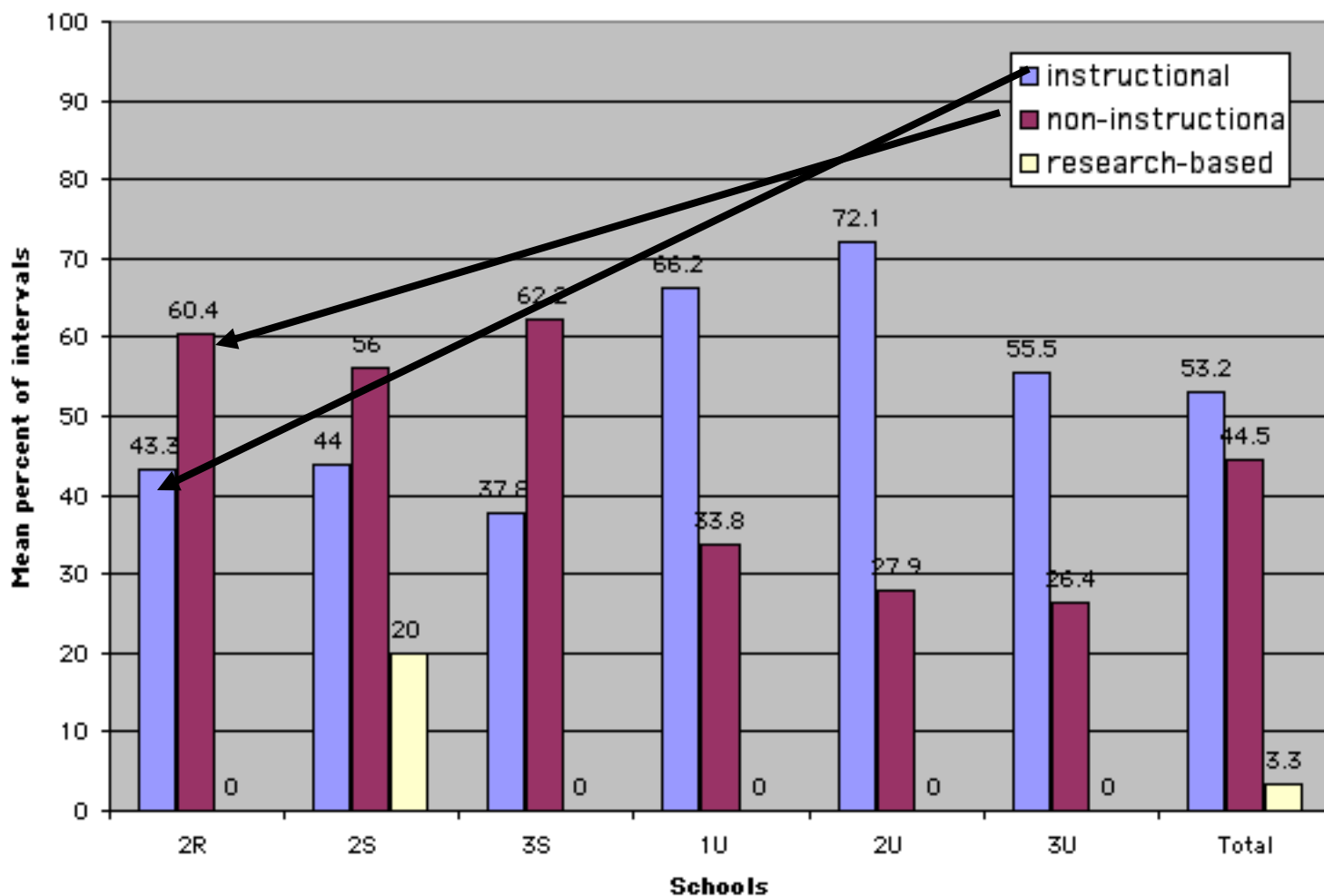
General Education Teacher Observation Interval Type



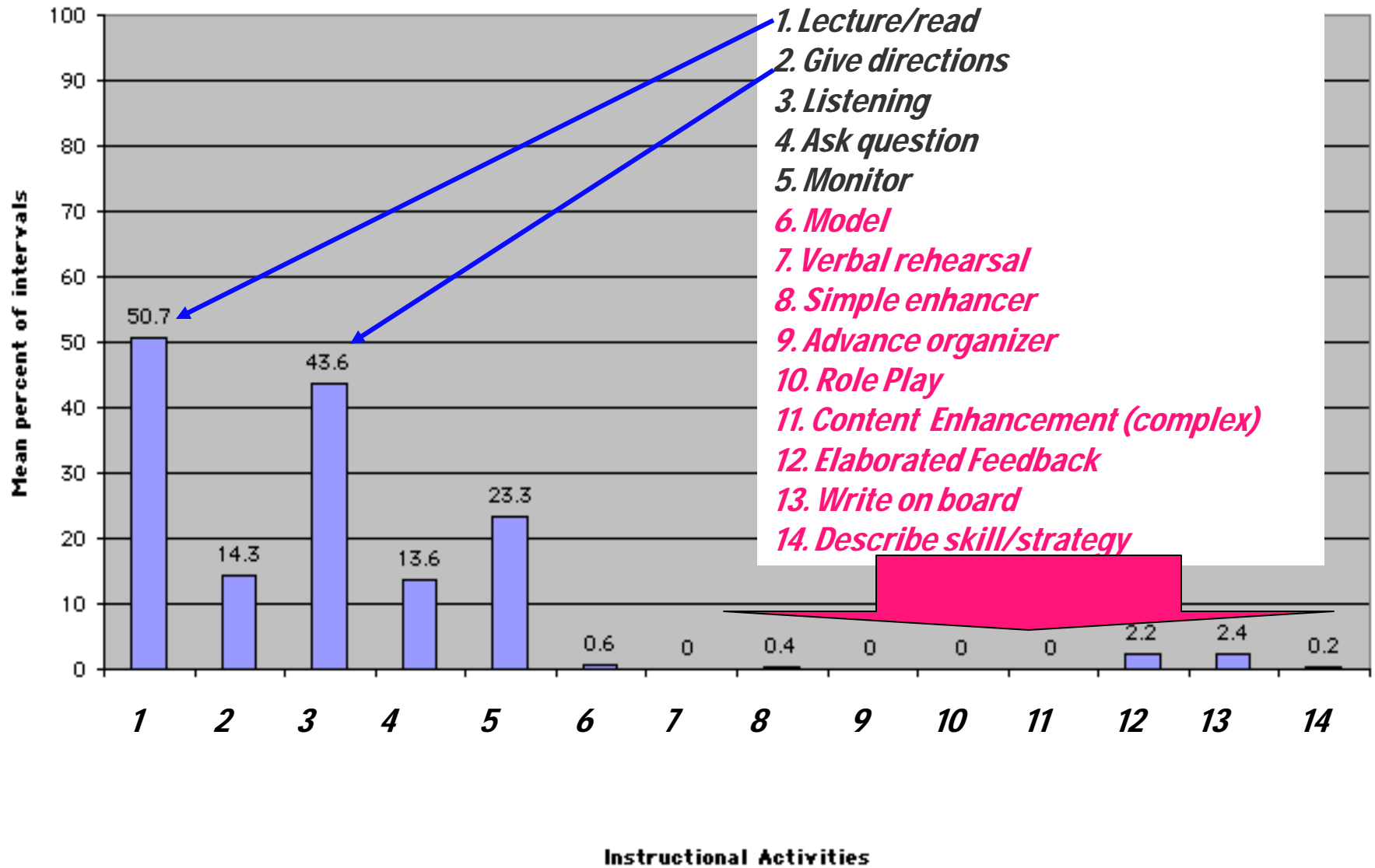
Observation of Teacher Practice Study



Mean percentage of intervals special education teachers were observed in various activities for each school.

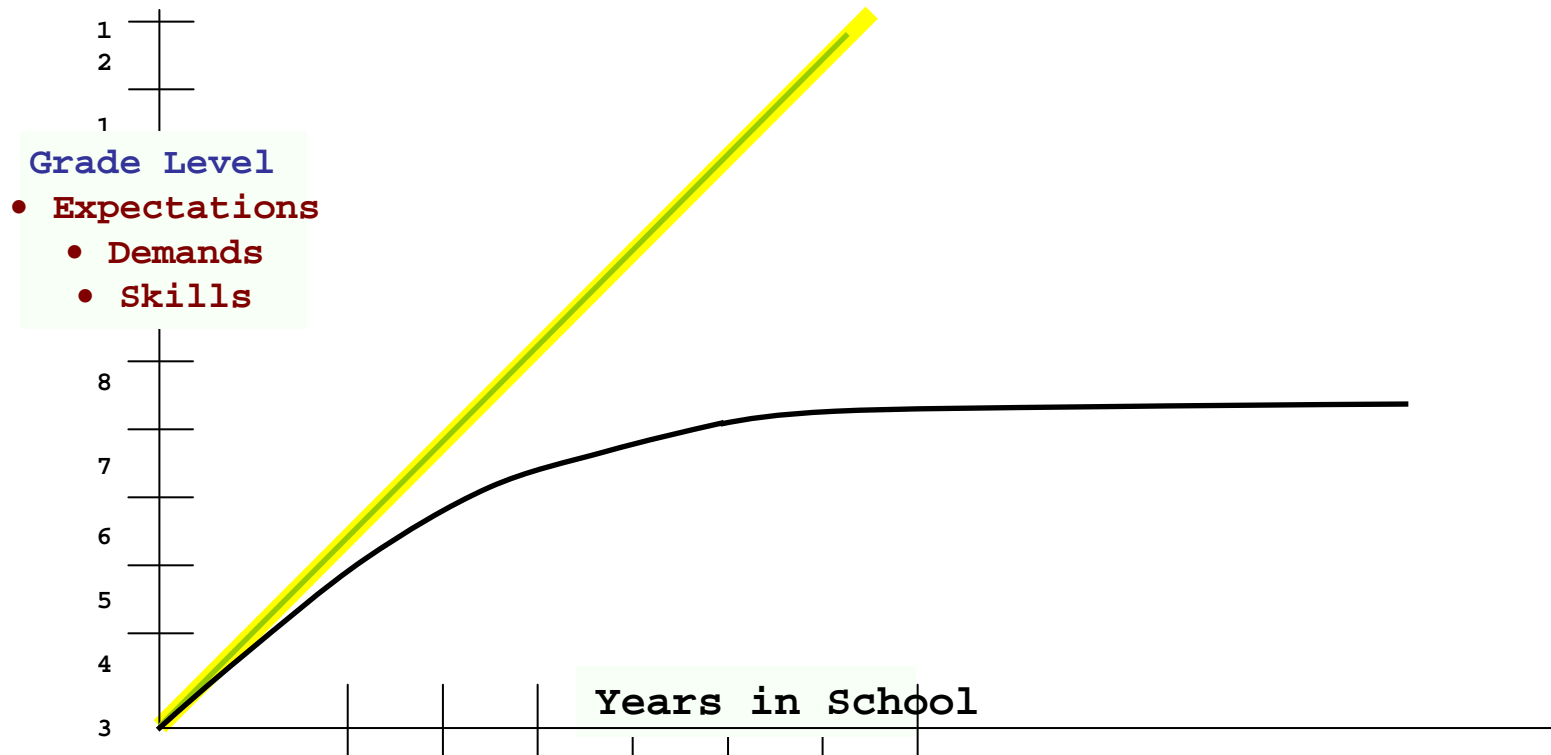


Special Education Teacher Observations

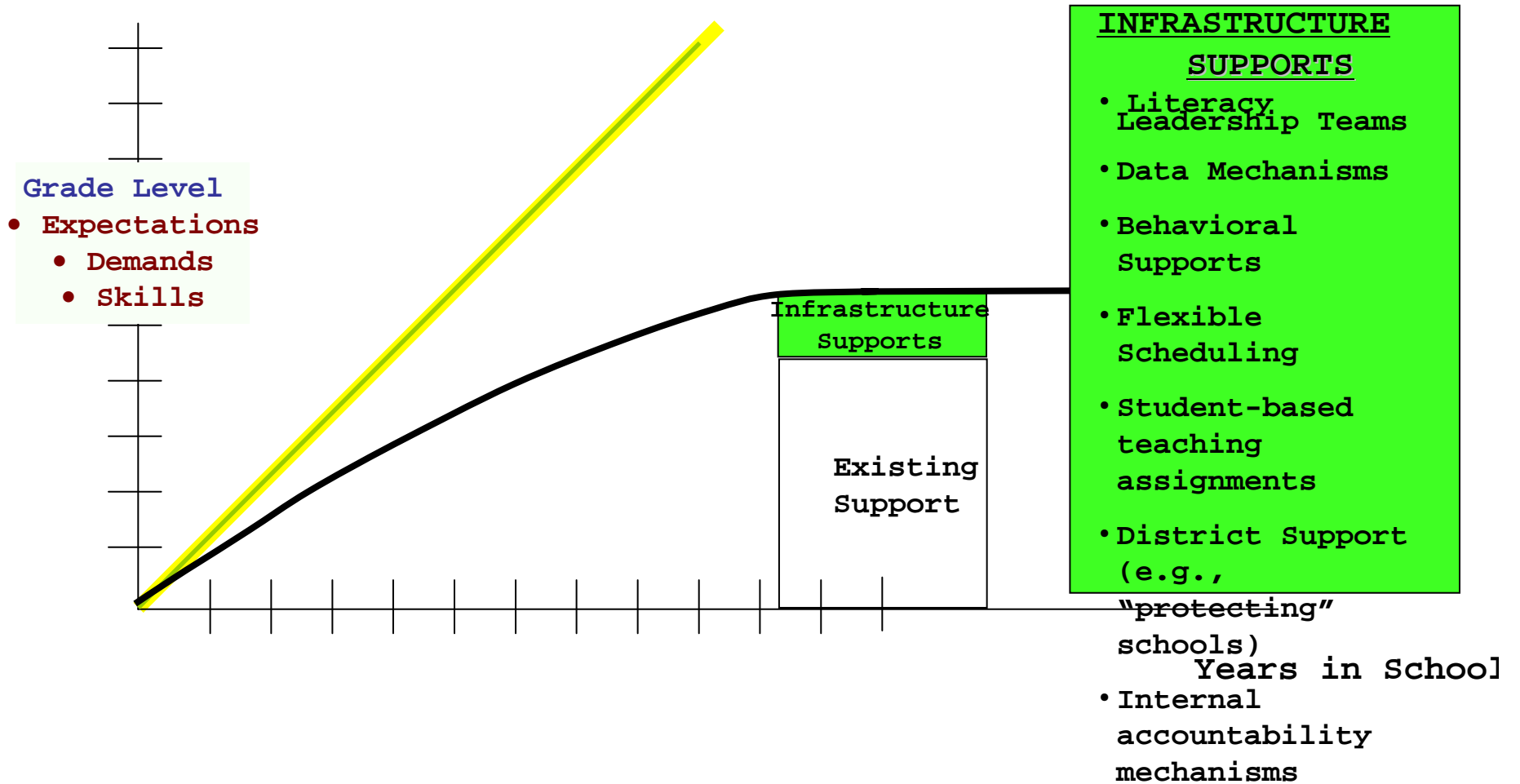


**From
10,000'**

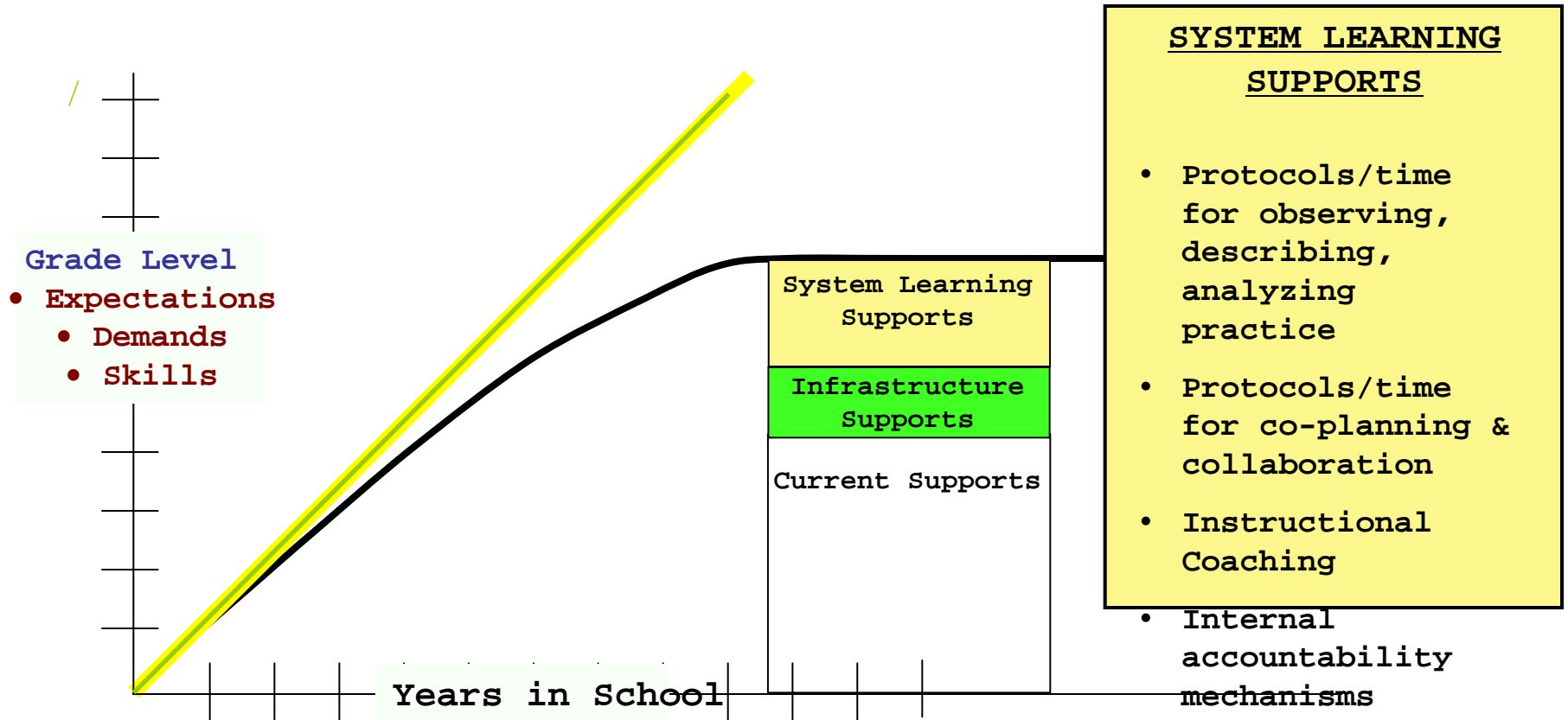
The Performance Gap



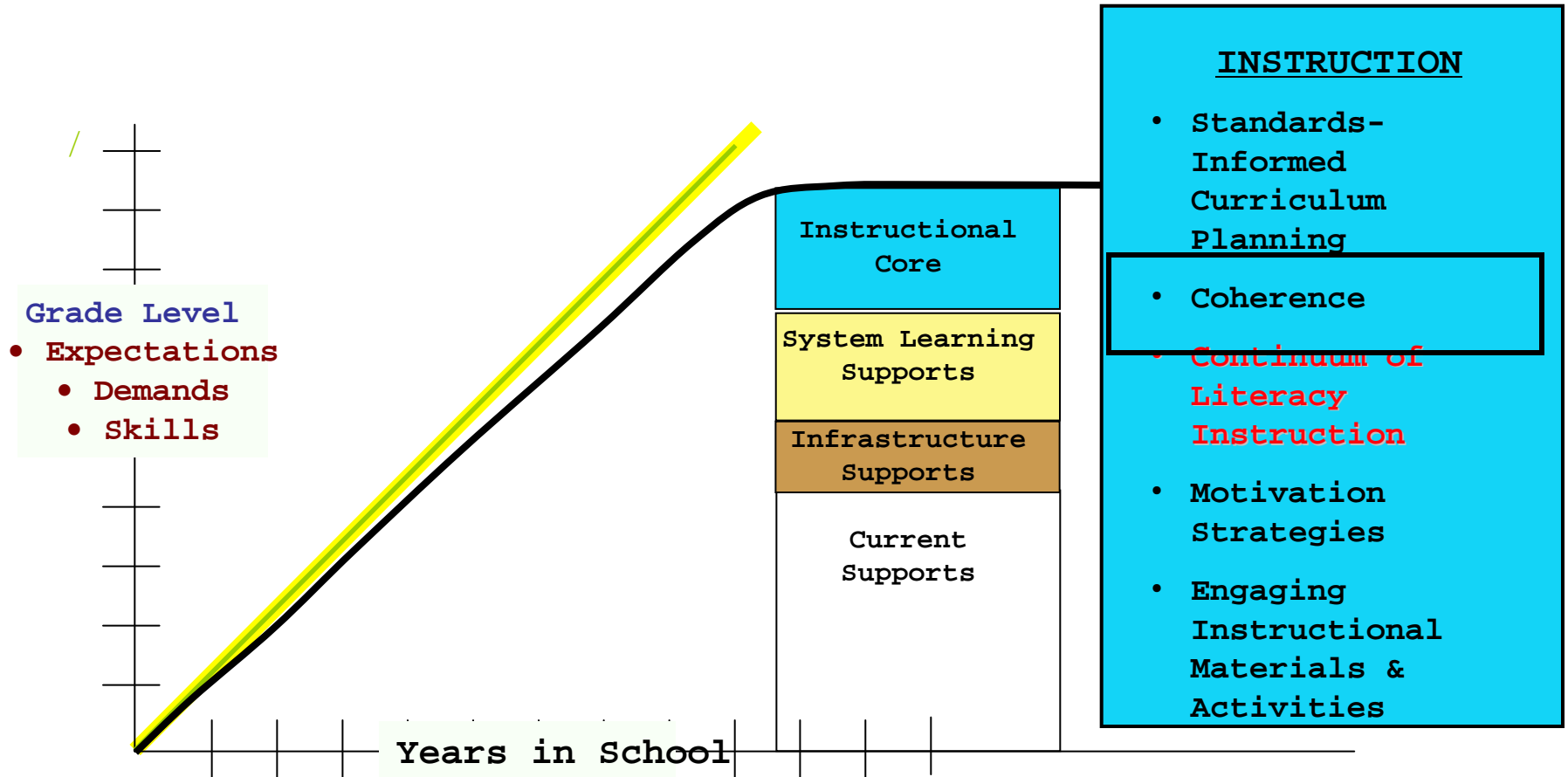
The Performance Gap



The Performance Gap



The Performance Gap

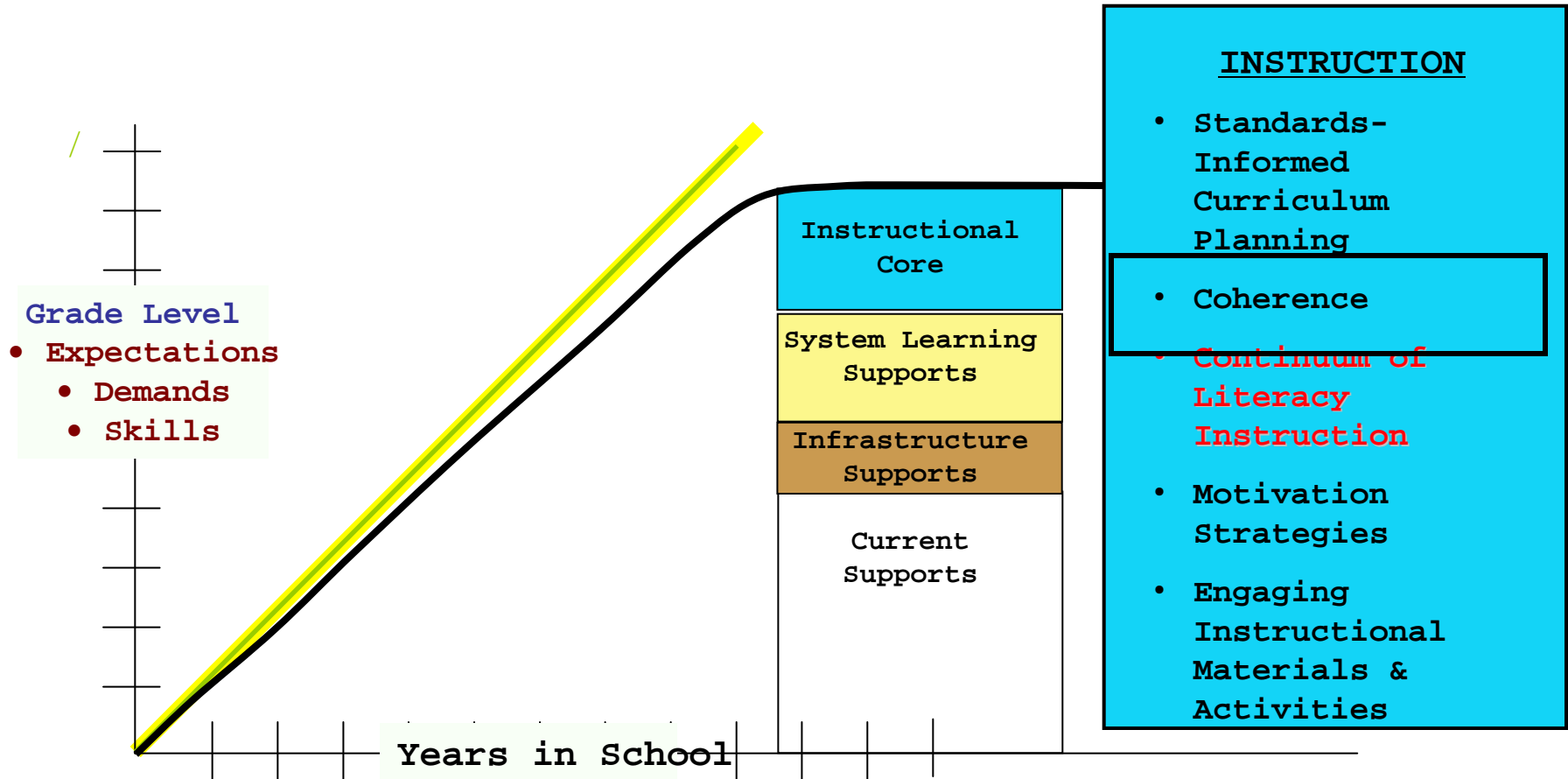


Questions

- **Does this framework make sense?**
- **What is missing?**

**On the
ground**

The Performance Gap



The **3** Defining Attributes

- Tiered
- Role differentiation
- Integrated

Begin by....

Getting a profile of the literacy performance of students in your school

Screen for.....

- **Word analysis skills**
- **Fluency**
- **Comprehension**
- **Vocabulary**

Then ask.....

Five questions
about literacy
supports

5 Questions

1. **What's in place in core classes to ensure that students will get the “critical” content in spite of their literacy skills?**
2. **Are powerful learning strategies embedded in courses across the curriculum?**
3. **What happens for students who know how to decode but can't comprehend well?**
4. **What happens for those students who are reading below the 4th grade level?**
5. **What happens for students who have language problems?**

Finally....

Use a “content literacy” framework to determine an action plan

A Continuum of Literacy Instruction

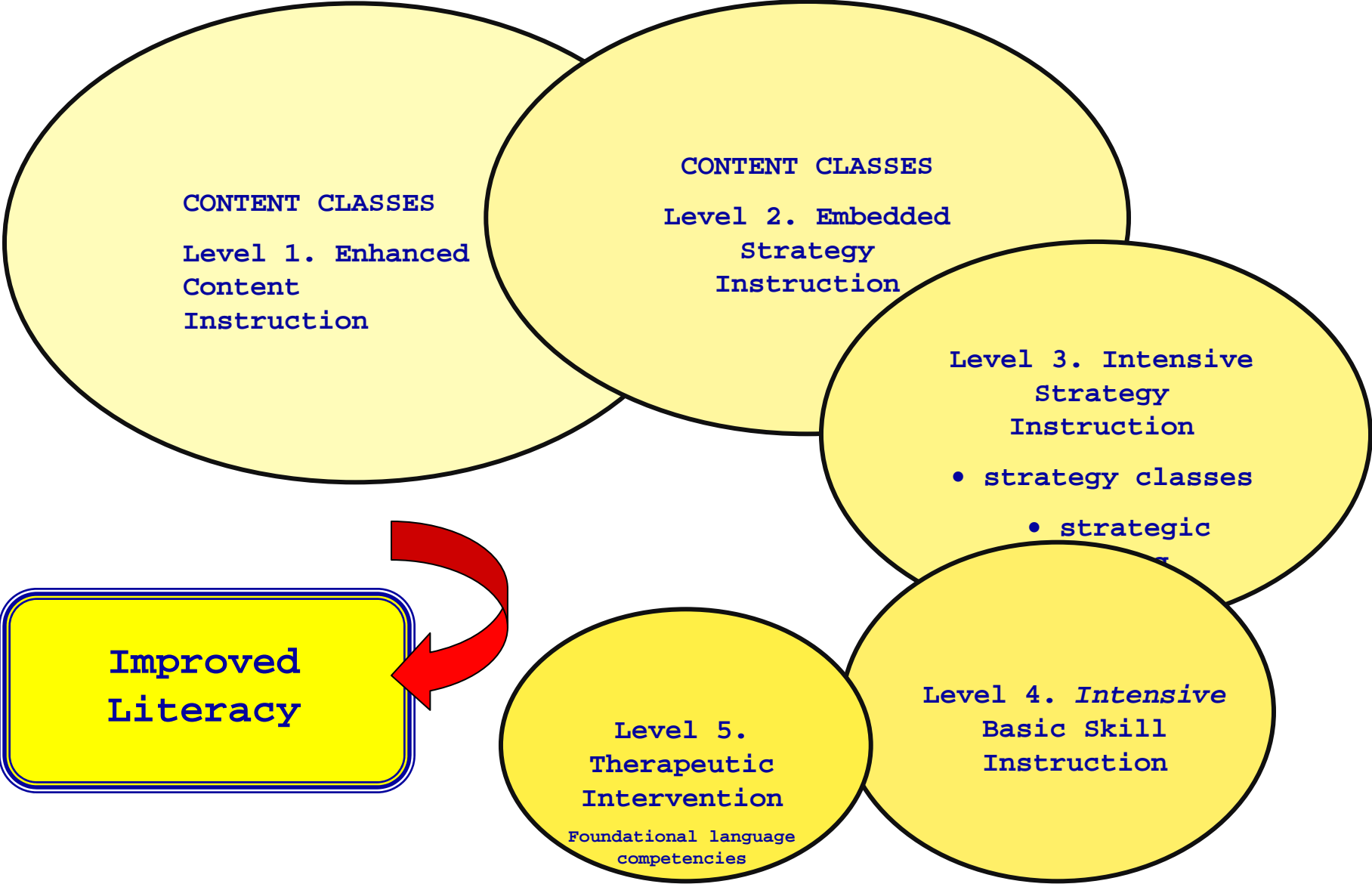
(Content Literacy Continuum -- CLC)

- Level 1:** **Enhance content instruction** (mastery of critical content for *all* regardless of literacy levels)
- Level 2:** **Embedded strategy instruction**
(routinely weave strategies within *and* across classes using large group instructional methods)
- Level 3:** **Intensive strategy instruction**
(mastery of specific strategies using intensive-explicit instructional sequences)
- Level 4:** **Intensive basic skill instruction**
(mastery of entry level literacy skills at the 4th grade level)
- Level 5:** **Therapeutic intervention** (mastery of

Questions

- **What kinds of literacy supports are offered in your schools?**
- **Strongest/weakest tier (level)?**

Content Literacy "Synergy"



Intense-Explicit Instruction (RTI)

LEVEL 1

- Cue
- Do
- Review

LEVEL 2

- “I do it!” (Learn by watching)
- “We do it!” (Learn by sharing)
- “You do it! (Learn by practicing)

LEVEL 3/4/5

- Pretest
- Describe
 - Commitment (student & teacher)
 - Goals
 - High expectations
- Model
- Practice and quality feedback
 - Controlled and advanced
- Posttest & reflect
- Generalize, transfer, apply

The CLC says...

- **There are unique (but very important) roles for each member of a secondary staff relative to literacy instruction**
 - While every content teacher is not a reading teacher, every teacher instructs students in how to read content.
 - Literacy coaches may be necessary but aren't sufficient
- **Some students require more intensive, systematic, explicit instruction of content, strategies, and skills**

Additionally, the CLC

- **Is a framework for guiding**
 - **Staff dialogue around literacy**
 - **Professional development**
 - **Resource allocation**
 - **Decision making**
- **Integrates instructional programs**
 - **From silos to synergy**

Sample interventions

Sample interventions

- Level 1

SMARTER Planning around **critical content** is essential!

SMARTER Planning

Selecting the critical questions.

Mapping content structures.

Analyzing learning difficulty based on:

- | | |
|---------------------------------------|---------------------------------------|
| <input type="checkbox"/> Quantity | <input type="checkbox"/> Complexity |
| <input type="checkbox"/> Interest | <input type="checkbox"/> Background |
| <input type="checkbox"/> Relevance | <input type="checkbox"/> Organization |
| <input type="checkbox"/> Abstractness | |

Reaching enhancement decisions by selecting powerful...

Teaching Devices

Teaching strategically through explicit...

Teaching Routines

Evaluating enhancements

Revaluate outcomes

Comparison Table

- C** Communicate Targeted Concepts
O Obtain the Overall Concepts
M Make lists of Known Characteristics
P Pin down Like Characteristics
A Assemble Like Categories
R Record Unlike Characteristics
I Identify Unlike Categories
N Nail Down a Summary
G Go Beyond the Basics

② Extensions

② Overall Concept

① Concept

① Concept

③ Characteristics

③ Characteristics

⑤ Like Categories

④ Like Characteristics

⑦ Unlike Categories

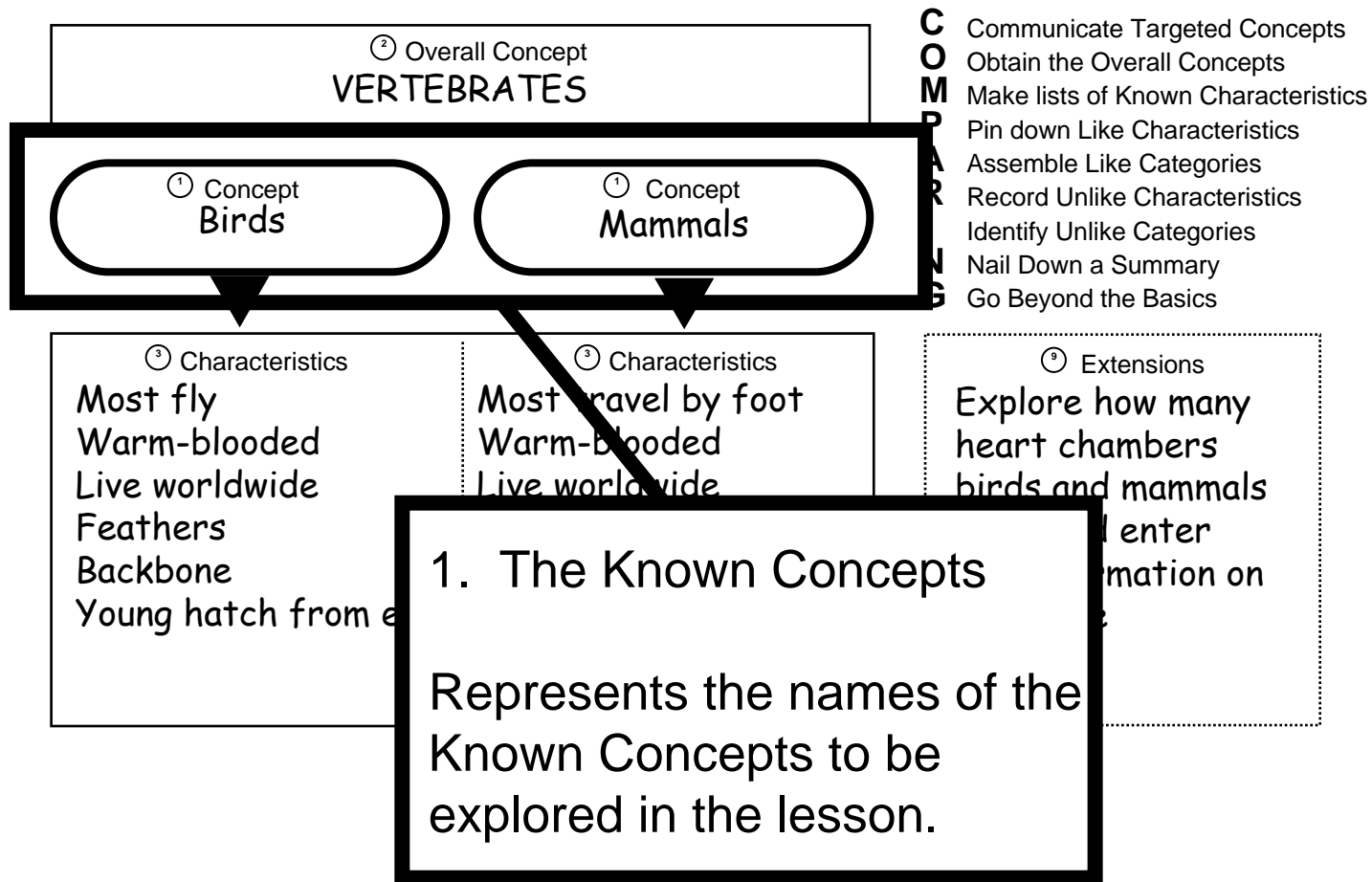
⑥ Unlike Characteristics

⑥ Unlike Characteristics

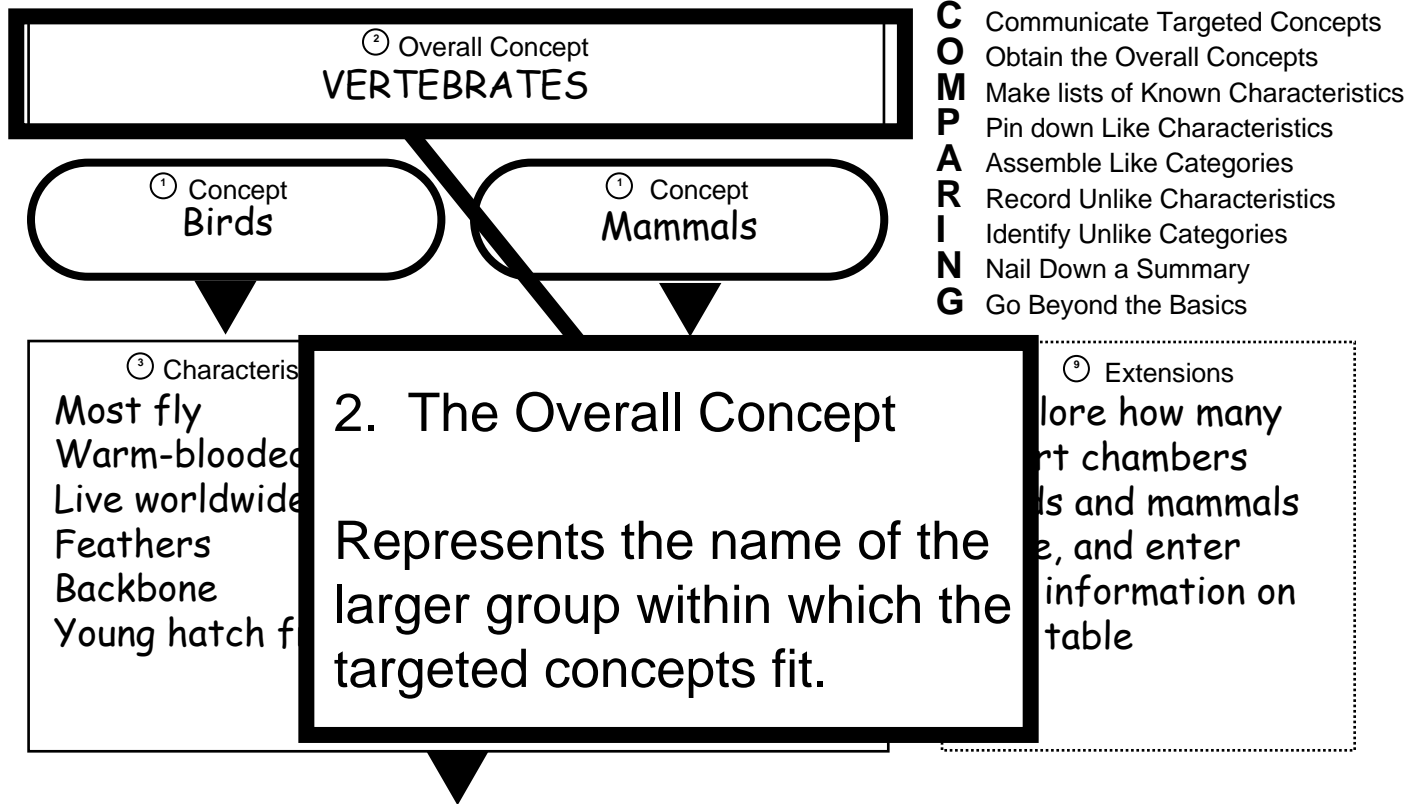
⑧ Summary



Comparison Table



Comparison Table



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Comparison Table

② Overall Concept
VERTEBRATES

① Concept
Birds

① Concept
Mammals

③ Characteristics	③ Characteristics
Most fly	Most travel by foot
Warm-blooded	Warm-blooded
Live worldwide	Live worldwide
Feathers	Hair
Backbone	Backbone
Young hatch from eggs	Most young born live

C Communicate Targeted Concepts
O Obtain the Overall Concepts
M Make lists of Known Characteristics
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③ Extensions
 Explore how many heart chambers birds and mammals have and enter

3. Characteristics of Concepts

Describe the characteristics or distinguishing traits of the concepts to be explored



② Overall Concept
VERTEBRATES

① Concept
Birds

① Concept
Mammals

③ Characteristics
Most fly
Warm-blooded
Live worldwide
Feathers
Backbone
Young hatch from eggs

③ Characteristics
Most travel by land
Warm-blooded
Live worldwide
Hair
Backbone
Most young born live

4. Like Characteristics
Those qualities or attributes that the targeted concepts have in common.

④ Like Characteristics
Warm-blooded
Live worldwide
Backbone

the table

⑤ Like Categories
How body temperature is regulated.
Where they live.
How their bodies are supported.

C Communicate Targeted Concepts
O Obtain the Overall Concepts
M Make lists of Known Characteristics
P Pin down Like Characteristics
A Assemble Like Categories
R Record Unlike Characteristics

6. Unlike Characteristics

Characteristics of the targeted concepts that are related yet not shared

④ Like Characteristics

Warm-blooded
Live worldwide
Backbone

supported

⑤ Unlike Characteristics

Most fly
Feathers
Young hatch from eggs

⑥ Unlike Characteristics

Most travel by foot
Hair
Most young born live

⑦ Unlike Categories

How they travel.
What covers their bodies.
How young are born.

⑧ Summary

Birds and mammals are two vertebrates that are alike with regard to how their body temperature is regulated, where they live and how their bodies are supported. They are different in terms of what covers their bodies and how they travel from one place to another. They are also different in terms of how their young are born.



② Overall Concept
VERTEBRATES

① Concept

① Concept

5. Like Categories

The larger groups or categories to which the Like Characteristics belong

③

Most f
Warm
Live w
Feathe
Backb
Young hatch from eggs

Most young born live

- C** Communicate Targeted Concepts
O Obtain the Overall Concepts
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I Identify Unlike Categories
N Nail Down a Summary
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④ Extensions

Explore how many heart chambers birds and mammals have, and enter the information on the table

④ Like Characteristics

Warm-blooded
Live worldwide
Backbone

⑤ Like Categories

How body temperature is regulated.
Where they live.
How their bodies are supported.

7. Unlike Categories

Larger groups or categories to which the Unlike Characteristics belong.

⑤ Like Categories

How body temperature is regulated.
Where they live.
How their bodies are supported.

⑥ Unlike Characteristics

Most fly
Feathers
Young hatch from eggs

⑥ Unlike Characteristics

Most travel by foot
Hair
Most young born live

⑦ Unlike Categories

How they travel.
What covers their bodies.
How young are born.

⑧ Summary

Birds and mammals are two vertebrates that are alike with regard to how their body temperature is regulated, where they live and how their bodies are supported. They are different in terms of what covers their bodies and how they travel from one place to another. They are also different in terms of how their young are born.



④ Like Characteristics

Warm-blooded
Live worldwide
Backbone

⑤ Like

How body temperature regulated.
Where they live.
How their bodies are supported.

<p>⑥ Unlike Characteristics</p> <p>Most fly Feathers Young hatch from eggs</p>	<p>⑥ Unlike Characteristics</p> <p>Most travel by foot Hair Most young born live</p>
--	--

⑦ Unlike

How they travel.
What covers their bodies.
How young are born.

8. Summary

An understanding of the similarities and differences between concepts that can either:

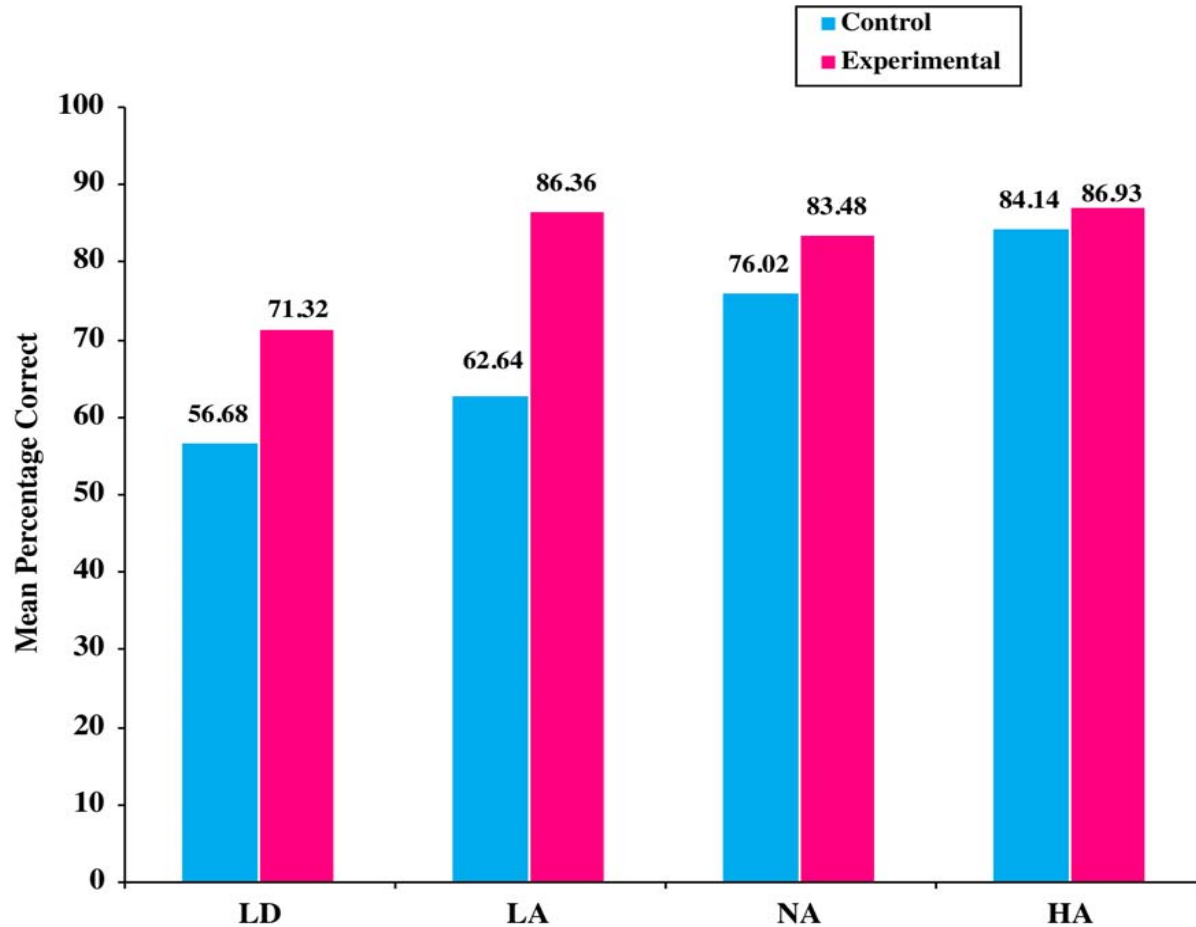
- explain how the concepts are alike or different in terms of named categories,
- explain how the concepts are alike or different in terms of both characteristics and categories, or
- raise questions or list insights gained from the comparison.

⑧ Summary

Birds and mammals are two vertebrates that are alike with regard to how their body temperature is regulated, where they live and how their bodies are supported. They are different in terms of what covers their bodies and how they travel from one place to another. They are also different in terms of how their young are born.

Mean Percentage Total Scores on tests of Concept Comparisons

for subgroups of students



Sample interventions

- Level 2 (or 3)

Intervention (Experimental)

Strategies

1. Self-Questioning
2. Story-Structure Analysis
3. Summarizing

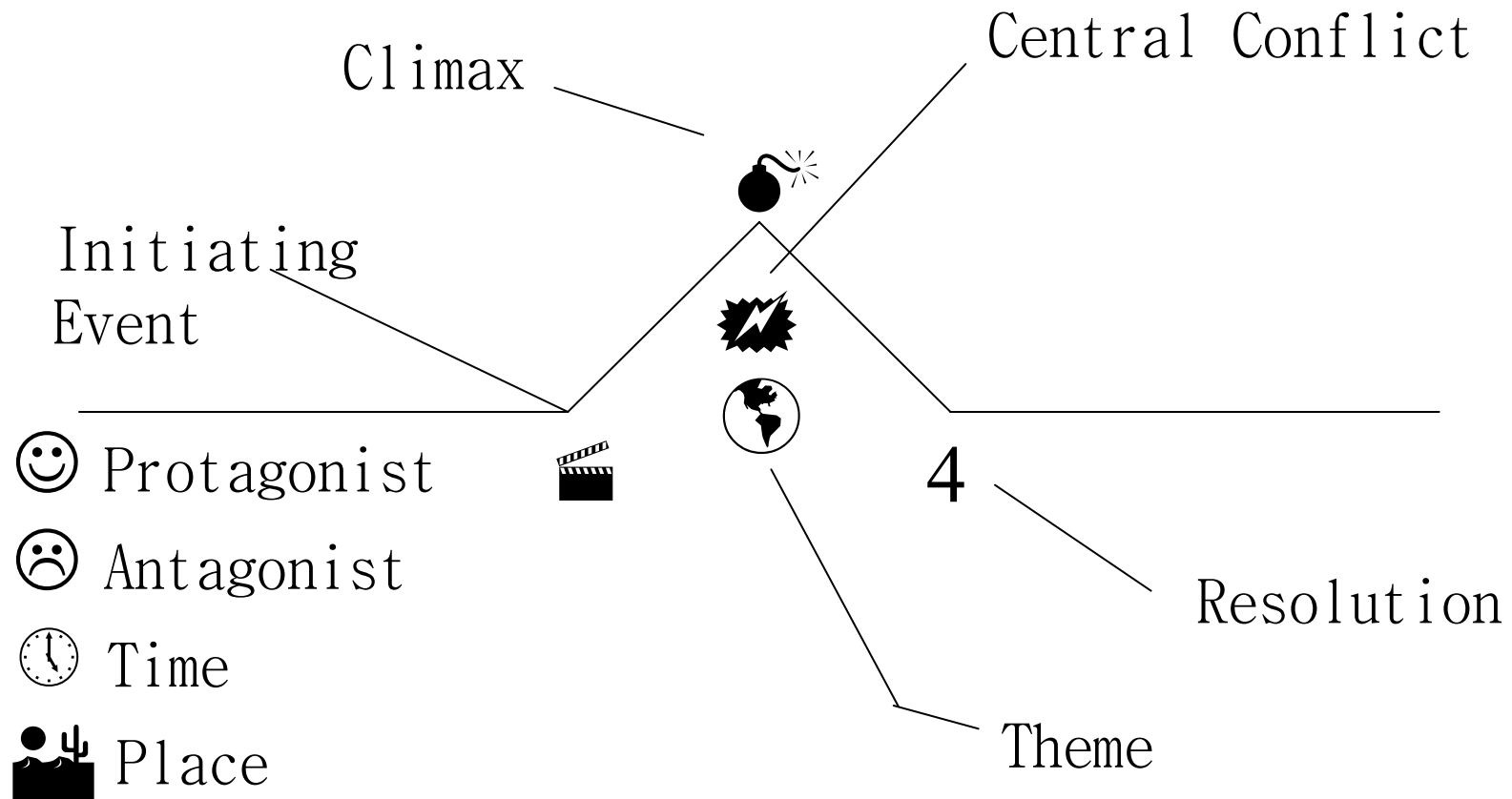
Instructional Practices

- 3 Classes of Embedded Story Structure
- Teacher-mediated to Student-mediated Instruction

Self-Questioning

- **Who** is the main character?
- **What** is the central conflict and how does it begin?
- **When** does the story take place?
- **Where** does the story take place?
- **Which** decision or event is the turning point?
- **How** does the central conflict end/resolve?
- **Why** did the author tell us the story in this way?

Story Structure Analysis



Summarizing

1. This story is about how (main character) struggles with (central conflict).
2. The struggle begins when (initiating event) and takes place (time & place).
3. The story climaxes when (climax) and the conflict is resolved by/when (resolution).
4. I think the author is trying to tell us that (theme).

Intervention (Control)

Strategies

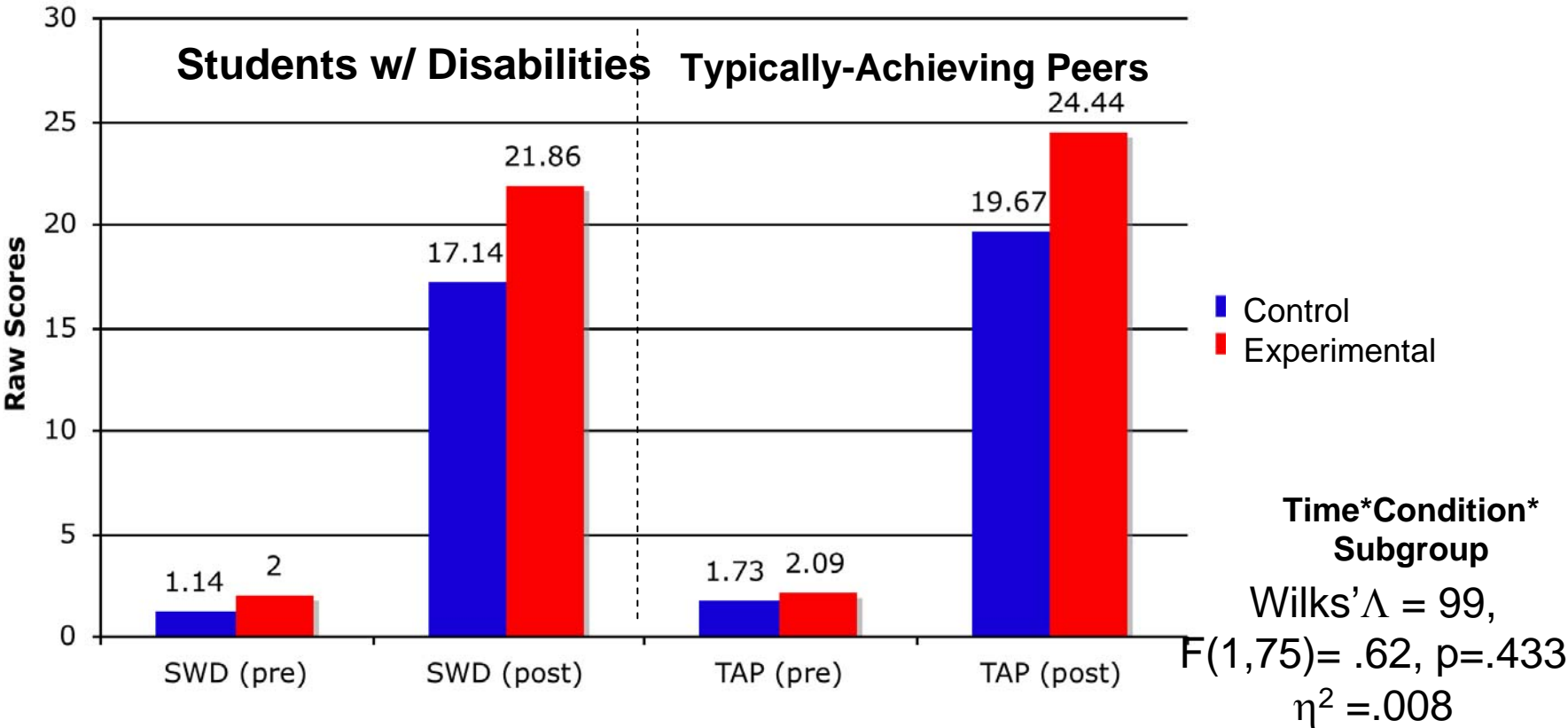
1. Question-Answer Relationships (QAR)
2. LINCS Vocabulary Instruction
3. Semantic Mapping

Instructional Practices

- 3 Classes of Research-Based Instruction
- Teacher-mediated to Student-mediated Instruction

Results: Summative

Unit Reading Comprehension Test by Subgroup



Word Mapping Strategy

To expand students vocabulary by helping them predict the meanings of unknown words using key language elements (roots, prefixes, suffixes) they come across while reading.

Word Families

“port” – to carry

import

export

report

porter

deport

support

important

transport

Word Mapping Strategy

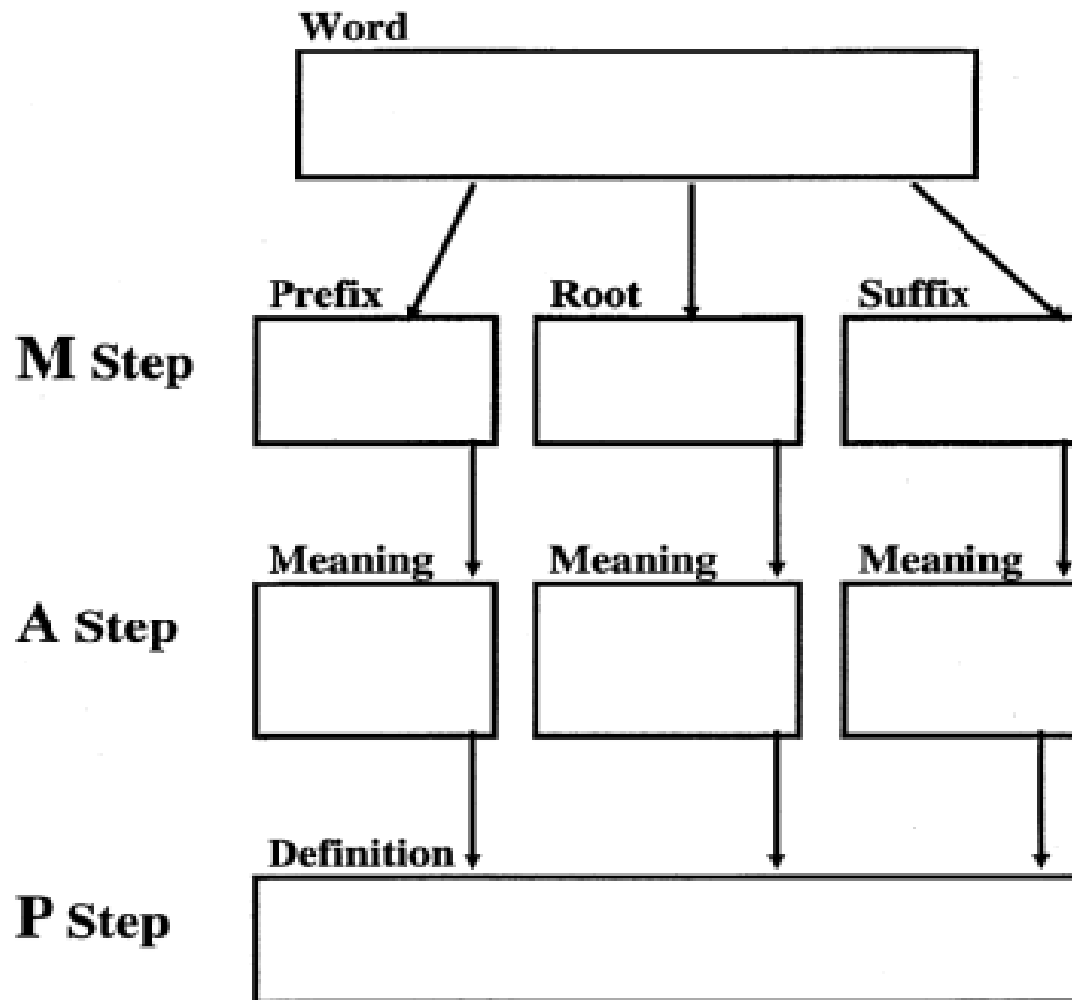
Step 1: **M** – Map the word parts

Step 2: **A** – Attack the meaning of
each part

Step 3: **P** – Predict the word's meaning

Step 4: **S** – See if you're right!

WORD MAP



S ee if you're right!

WORD MAP

Word

prediction

Prefix

pre

Root

dict

Suffix

ion

Meaning

*act,
result or
state of*

*ing before; to
say in advance.*

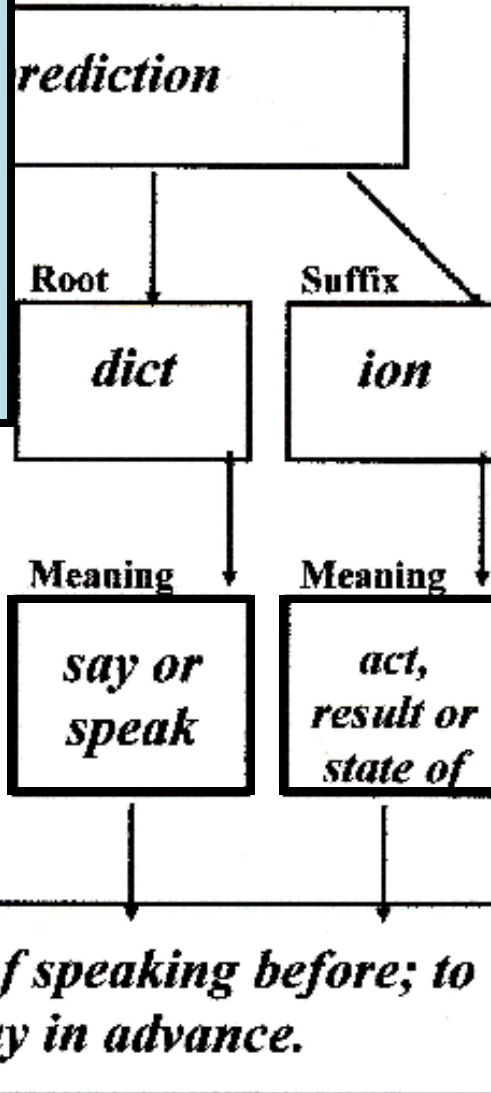
M Step

Map the targeted word by breaking it down into its word parts

See if you're right!

WORD MAP

Attack the meaning by translating each word part



A Step

P Step

S ee if you're right!

WORD MAP

Predict the meaning of the word by putting the word part meanings together



Word

prediction

Root

Suffix

dict

ion

Meaning

Meaning

Meaning

A Step

before

say or speak

act, result or state of

Definition

P Step

The act of speaking before; to say in advance.

See if you're right!

WORD MAP

Word

prediction

Prefix

Root

Suffix

ion

Meaning

*act,
result or
state of*

See if your prediction
is correct by using
context

Definition

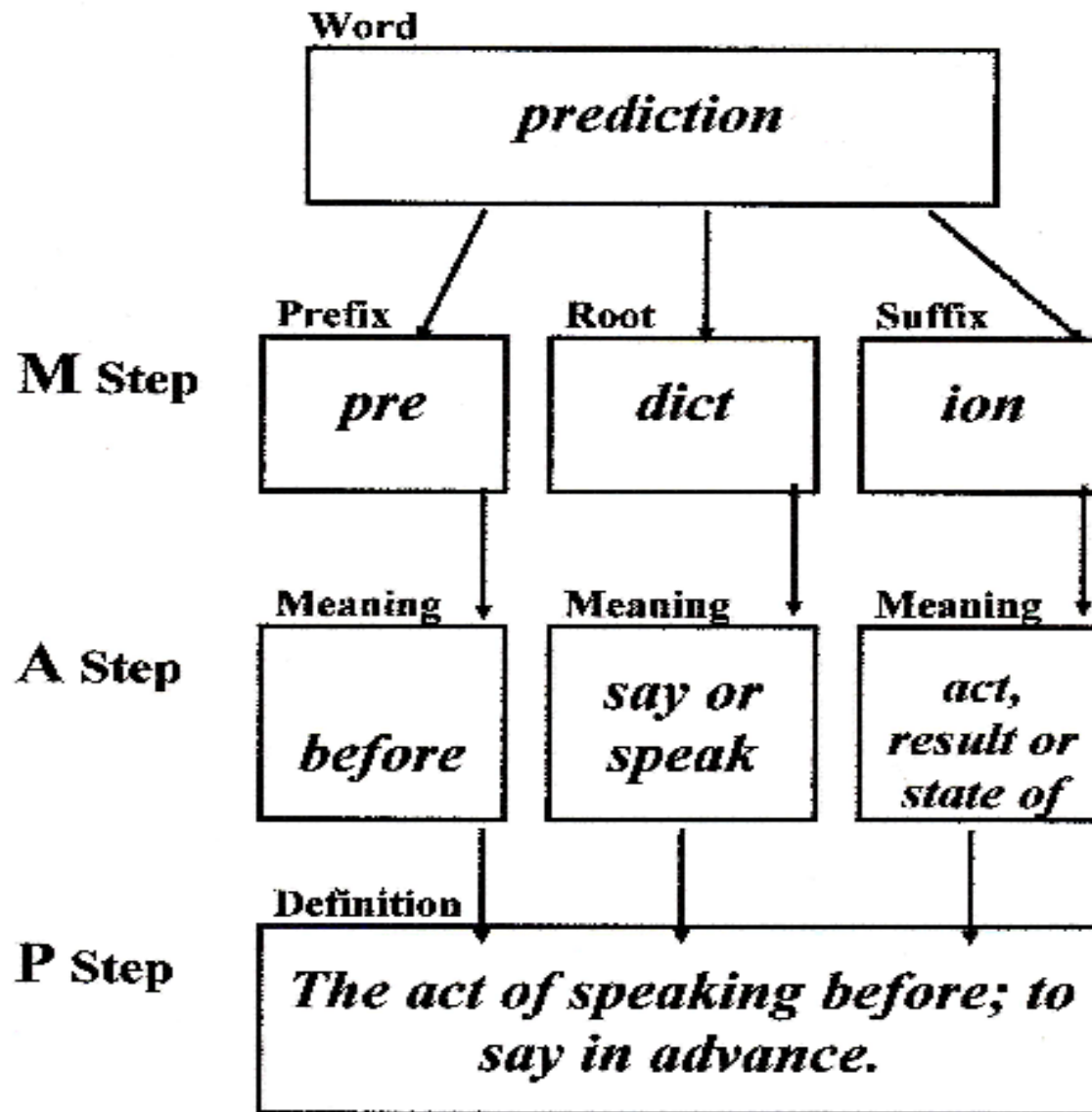
P Step

*The act of speaking before; to
say in advance.*

See if you're right!

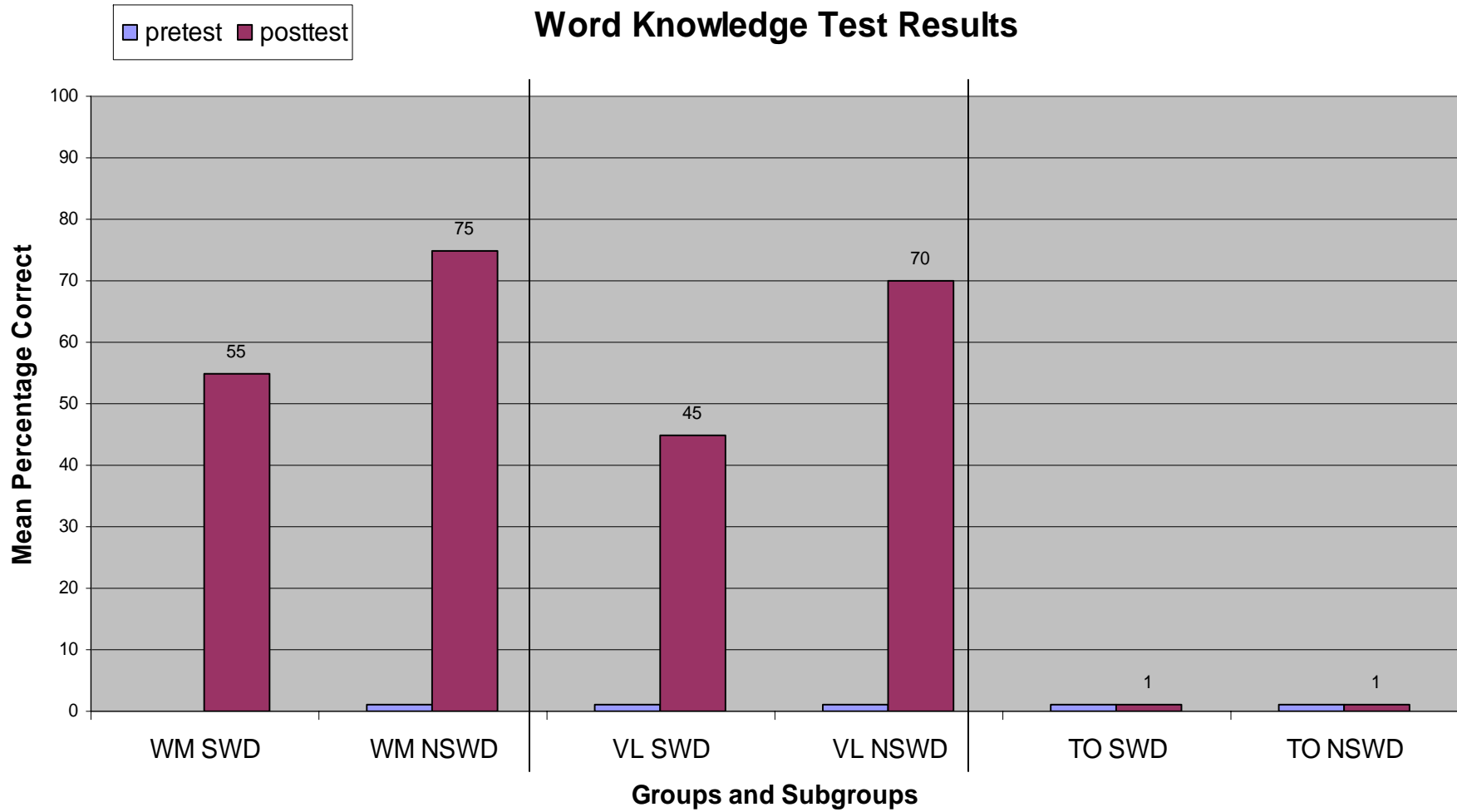


WORD MAP



S ee if you're right!

Word Knowledge Test Results

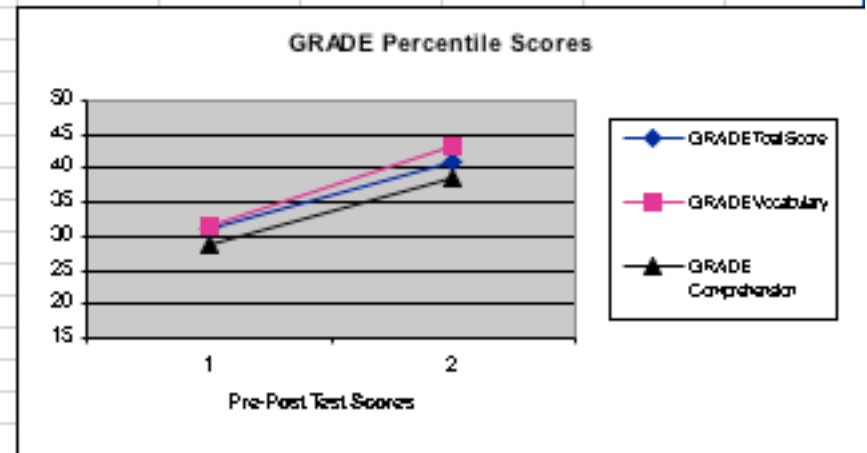
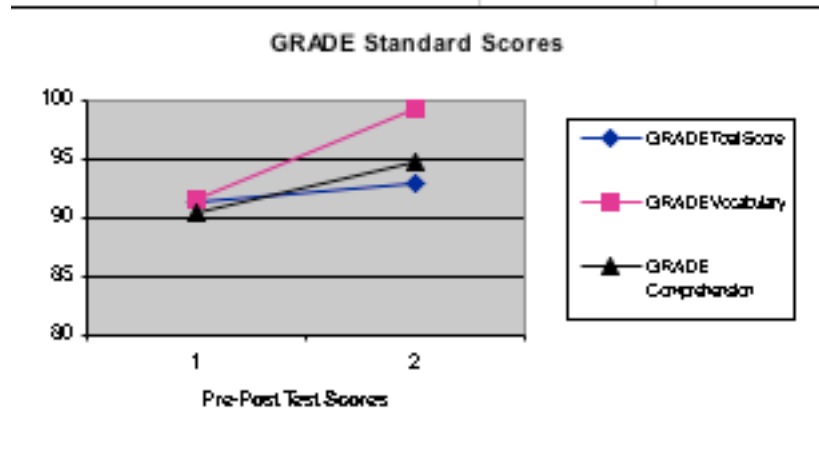
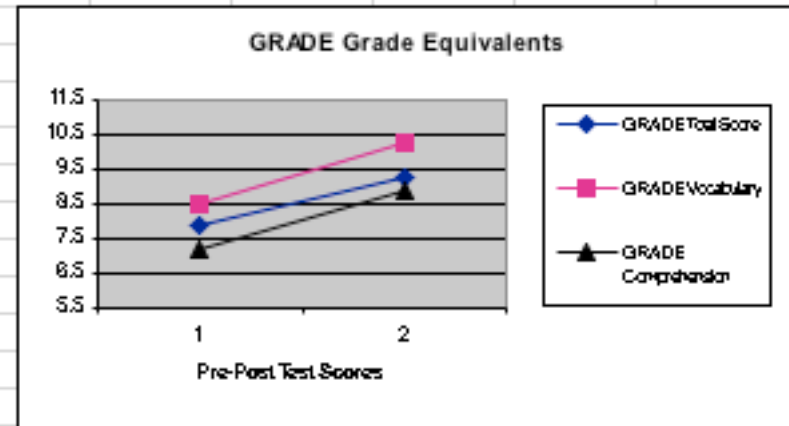


WM = Word Mapping
VL = Vocabulary LINCing
TO = Test-only

Wilks' $\Lambda = .964$, $F(2,224) = 4.138$, $p = .017$, partial $\eta^2 = .036$

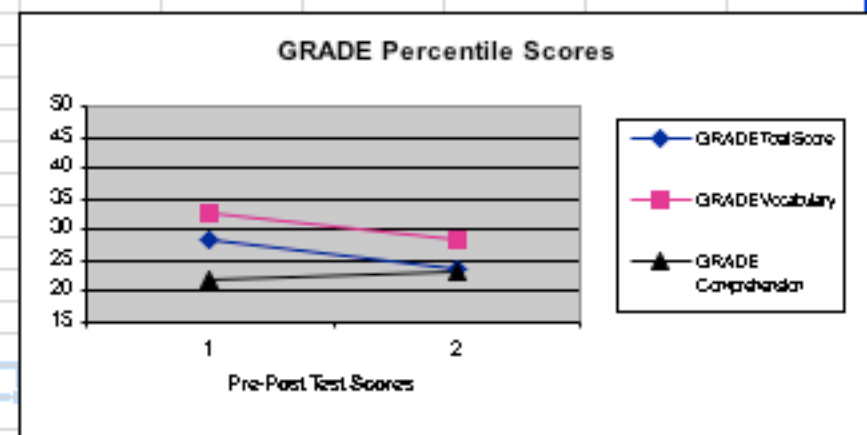
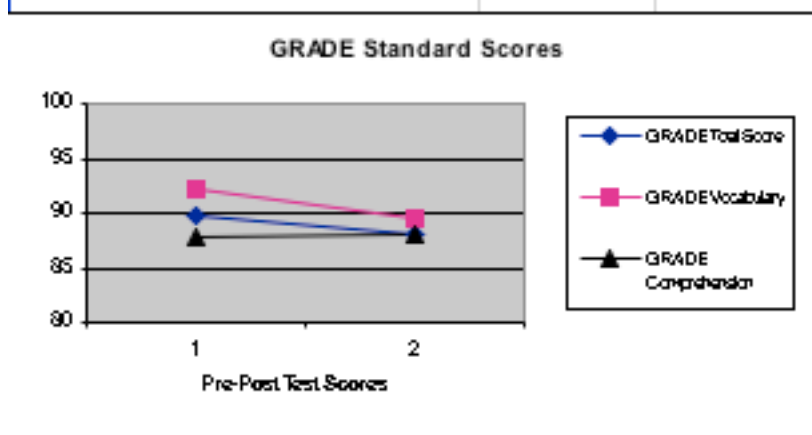
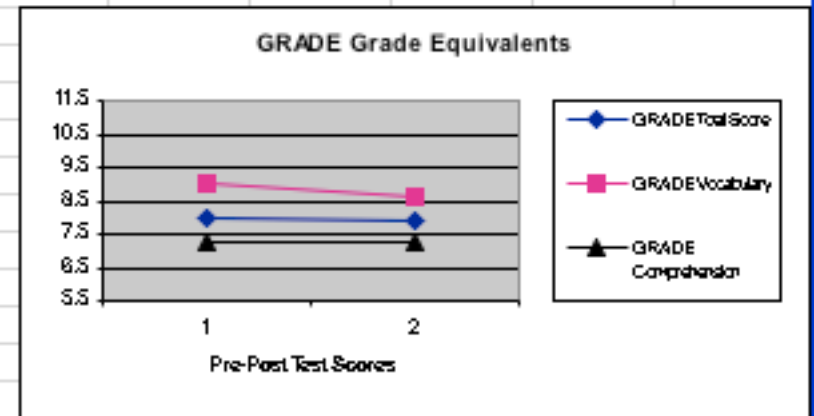
Are students significantly improving reading achievement?

High School #1			
	Pretest	Posttest	t-test
Grade Equivalent	Mean (SD)	Mean (SD)	score
GRADE Total Score (N=57)	7.9 (2.5)	9.3 (2.5)	3.47**
GRADE Vocabulary (N=57)	8.5 (2.6)	10.3 (2.4)	3.45**
GRADE Comprehension (N=57)	7.2 (2.3)	8.9 (2.9)	4.07***
Standard Score			
GRADE Total Score (N=57)	91.3 (10.1)	93.0 (18.1)	0.52
GRADE Vocabulary (N=58)	91.7 (11.7)	99.4 (10.6)	3.62***
GRADE Comprehension (N=57)	90.5 (9.3)	94.8 (10.1)	2.92**
Percentile			
GRADE Total Score (N=57)	31	40.9	
GRADE Vocabulary (N=58)	31.4	43.3	
GRADE Comprehension (N=57)	28.7	38.4	



Are students significantly improving reading achievement?

XXX High School			
	Pretest	Posttest	t-test
Grade Equivalent	Mean (SD)	Mean (SD)	score
GRADE Total Score (N=16)	8.0 (2.9)	7.9 (2.3)	.24 (ns)
GRADE Vocabulary (N=19)	9.0 (2.7)	8.6 (2.4)	.77 (ns)
GRADE Comprehension (N=16)	7.3 (3.1)	7.3 (2.6)	.02 (ns)
Standard Score			
GRADE Total Score (N=16)	89.8 (11.6)	88.1 (8.4)	.93 (ns)
GRADE Vocabulary (N=19)	92.1 (11.6)	89.5 (11.3)	1.17 (ns)
GRADE Comprehension (N=16)	87.7 (12.5)	88.0 (8.3)	.14 (ns)
Percentile			
GRADE Total Score (N=16)	28.4	23.6	
GRADE Vocabulary (N=19)	32.6	28.4	
GRADE Comprehension (N=16)	21.8	23.1	



RTI

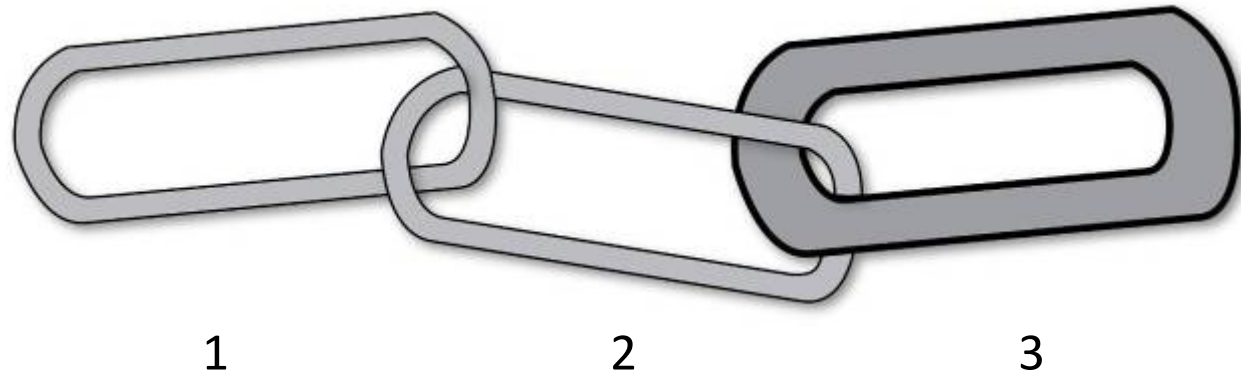
Implementation

Important Factors (Duffy)

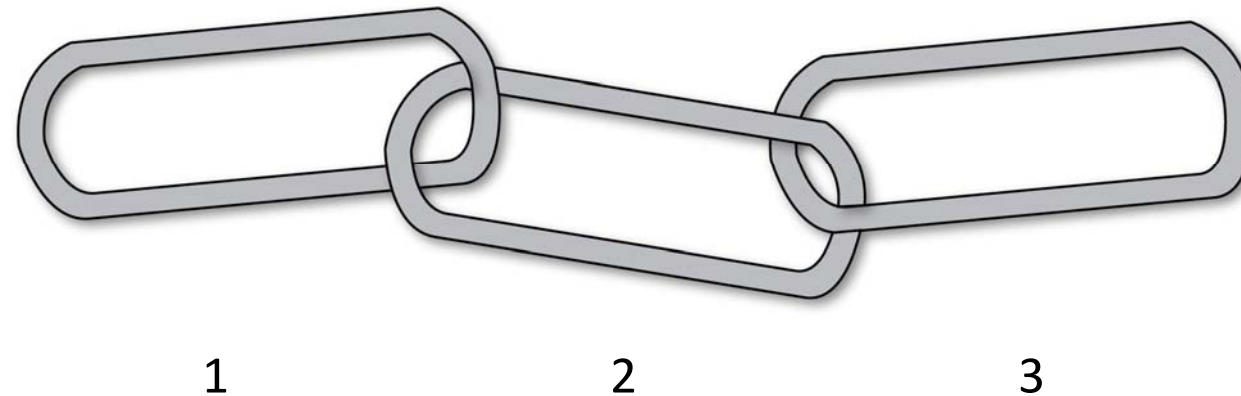
- Make RTI a part of the school's vision
- Find ways to include *all* staff members in RTI process (rotation on teams)
- Make differentiation a school-wide goal
- Create mechanisms for collaboration (e.g., cooperative planning period)
- Use pre-assessments/screenings
- Appoint 1-2 teachers to do progress monitoring probes
- Assign faculty as mentors for Tier 2 and 3 kids
- Create mechanism

Over Reliance on Support Education

Present



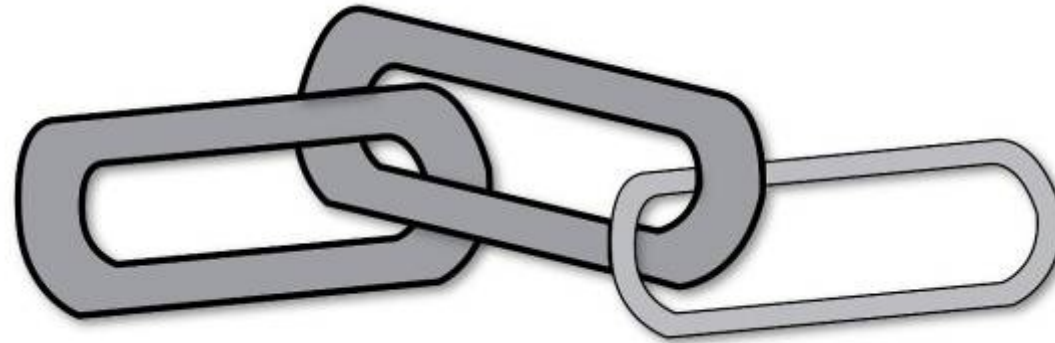
Future



Don Deshler

Over Reliance on General Education

Present

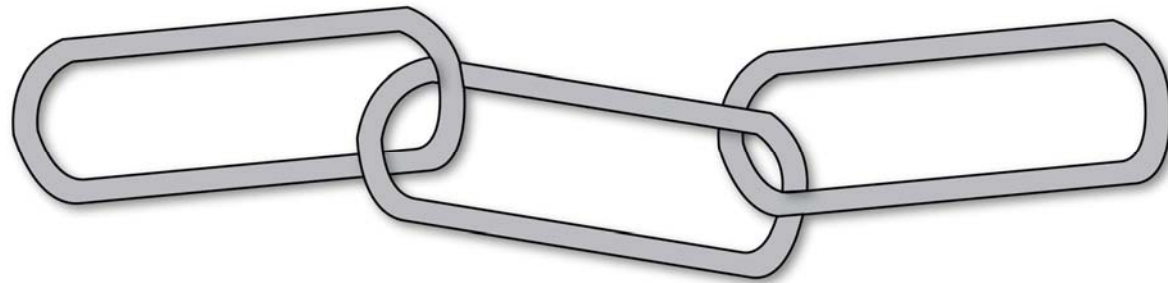


1

2

3

Future



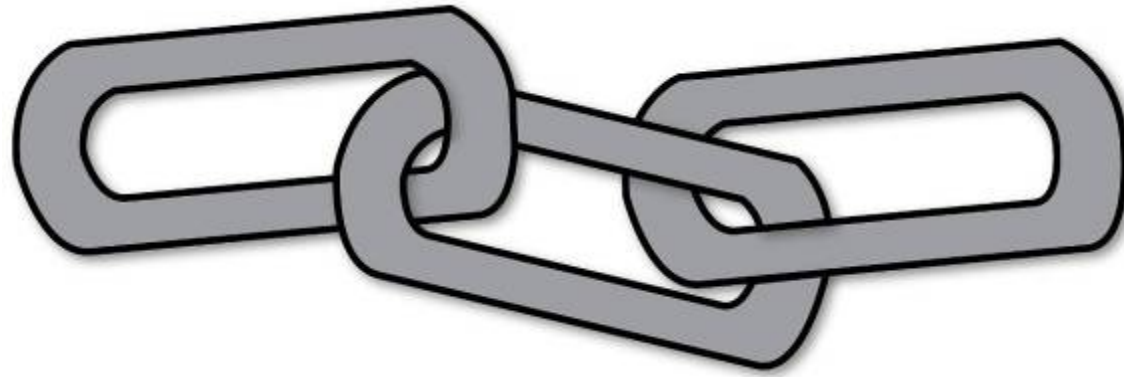
1

2

3

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Goal: Balanced Strength



1

2

3

Don Deshler

**Thank
You!**

Don Deshler
ddeshler@ku.edu

