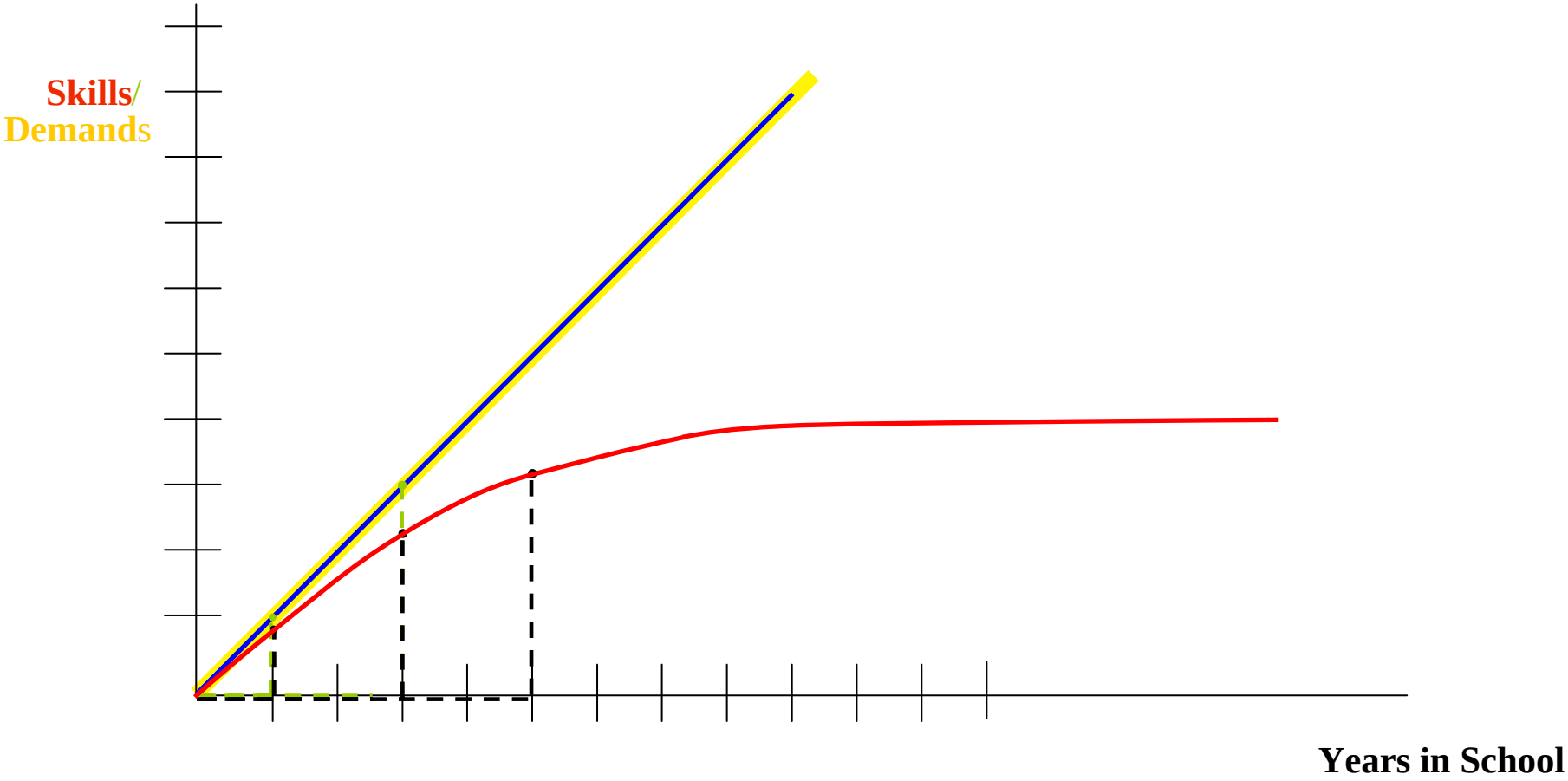
Implementing RTI in Secondary Schools

Don Deshler
University of Kansas
Center for Research on Learning

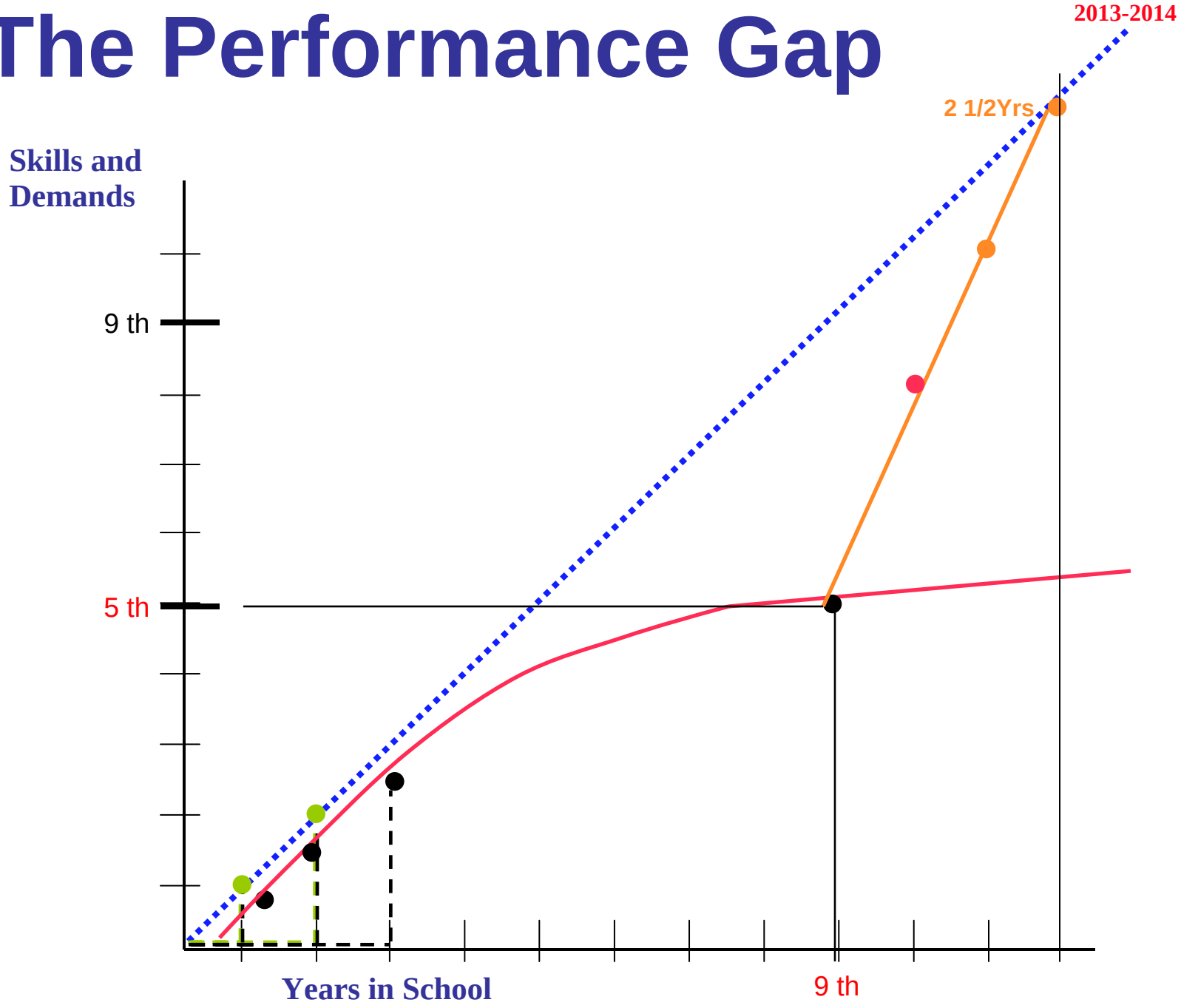
SIG/SPDG Directors' Webinar
October 16, 2008

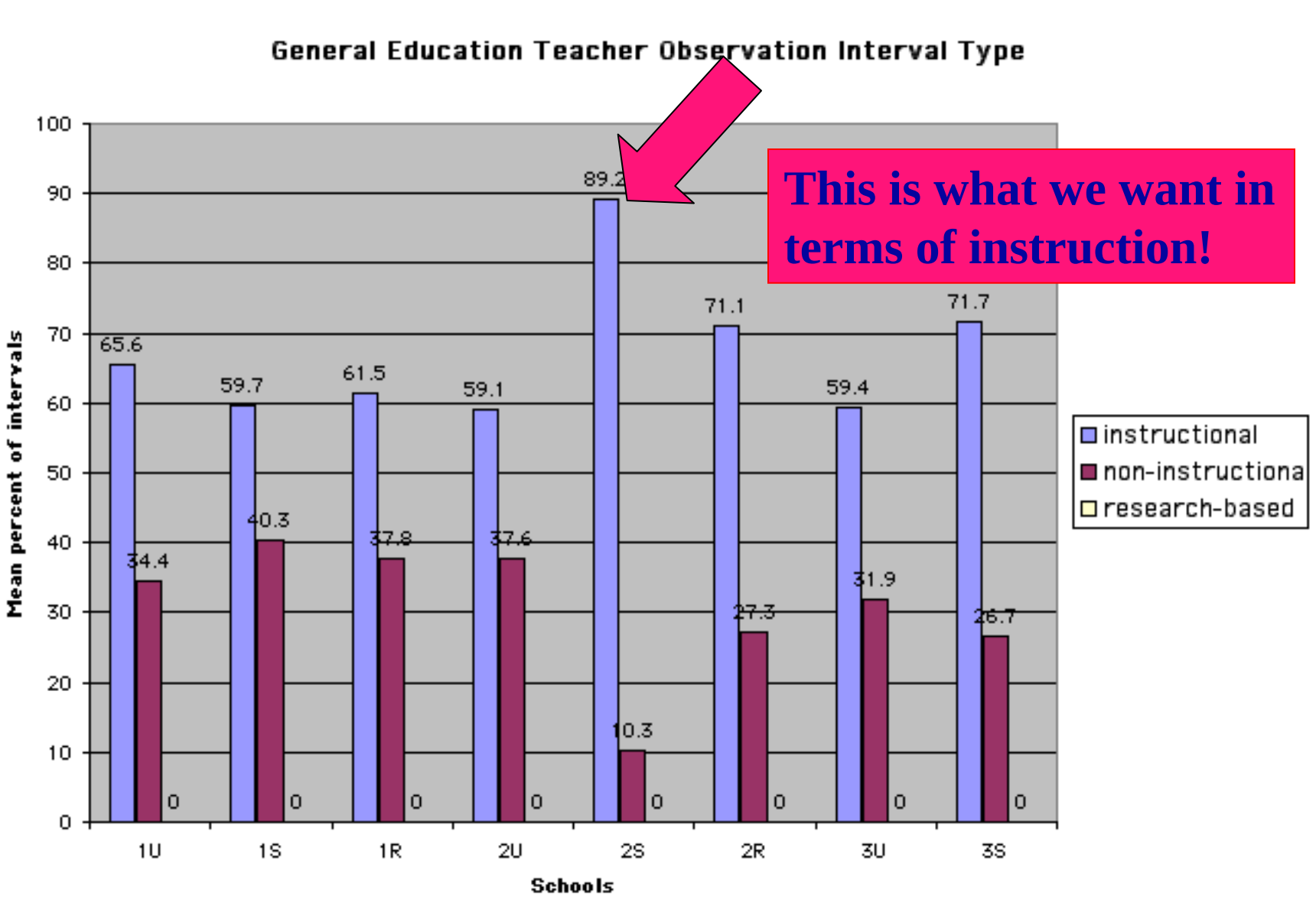
Setting the Stage

The Performance Gap

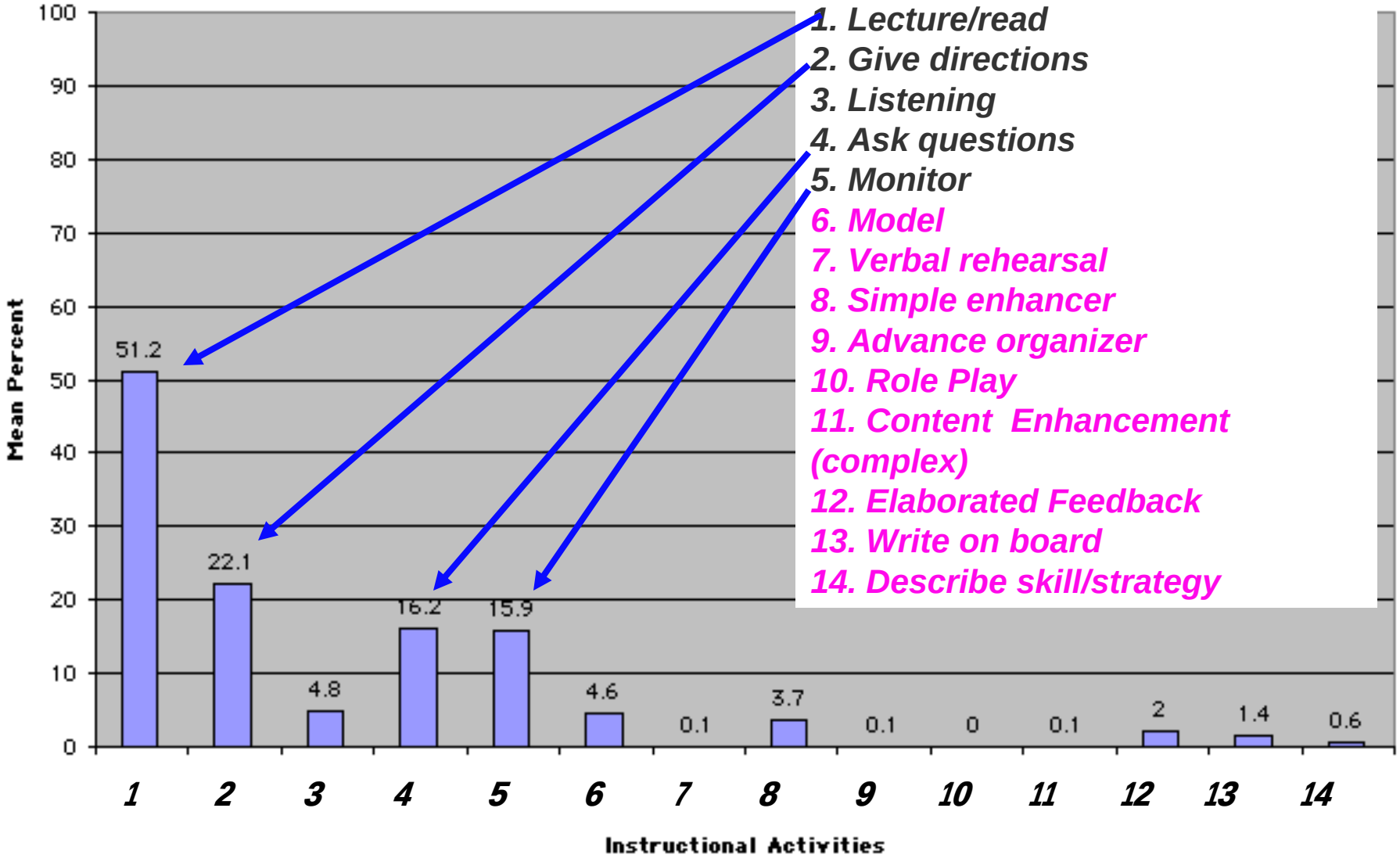


The Performance Gap

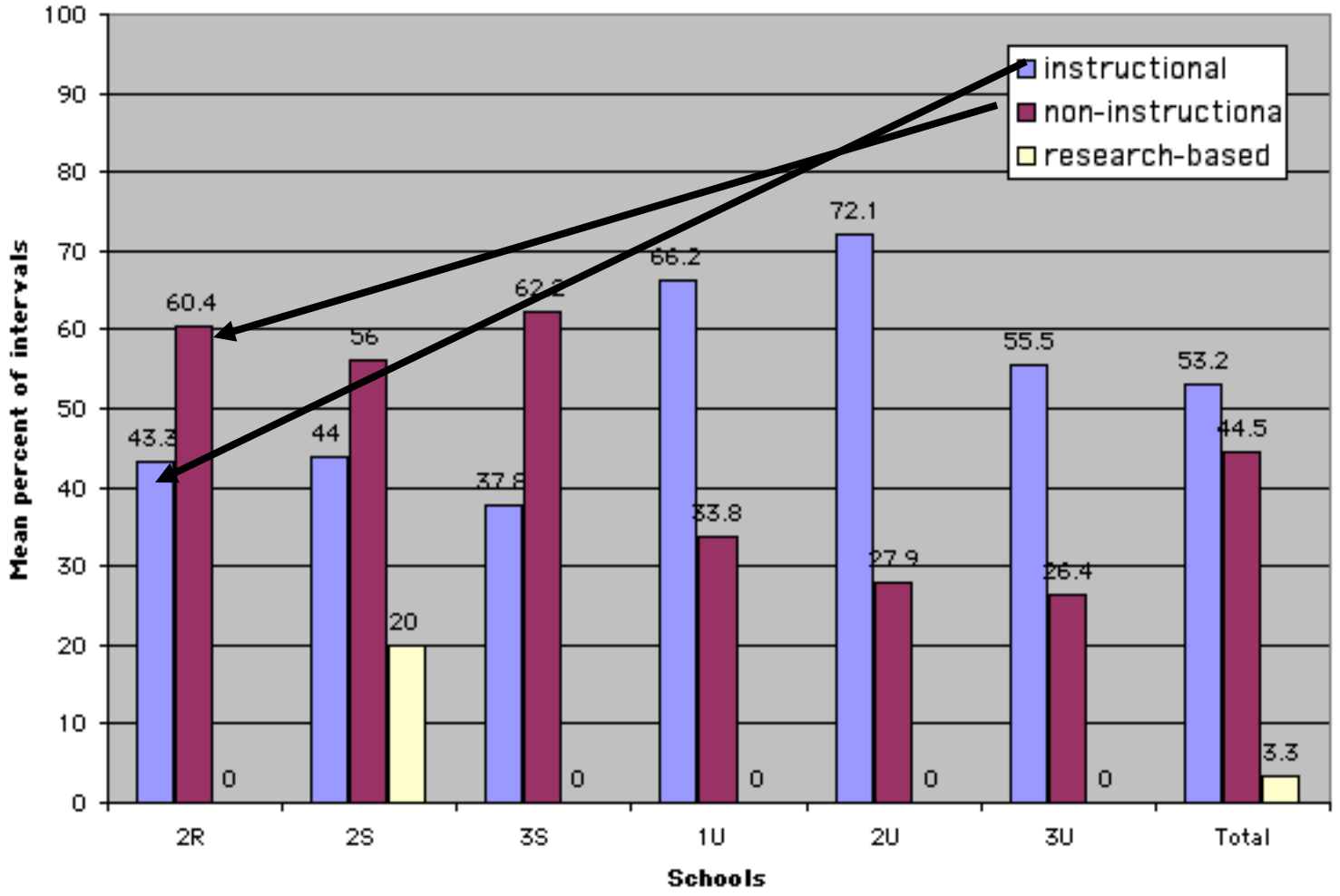


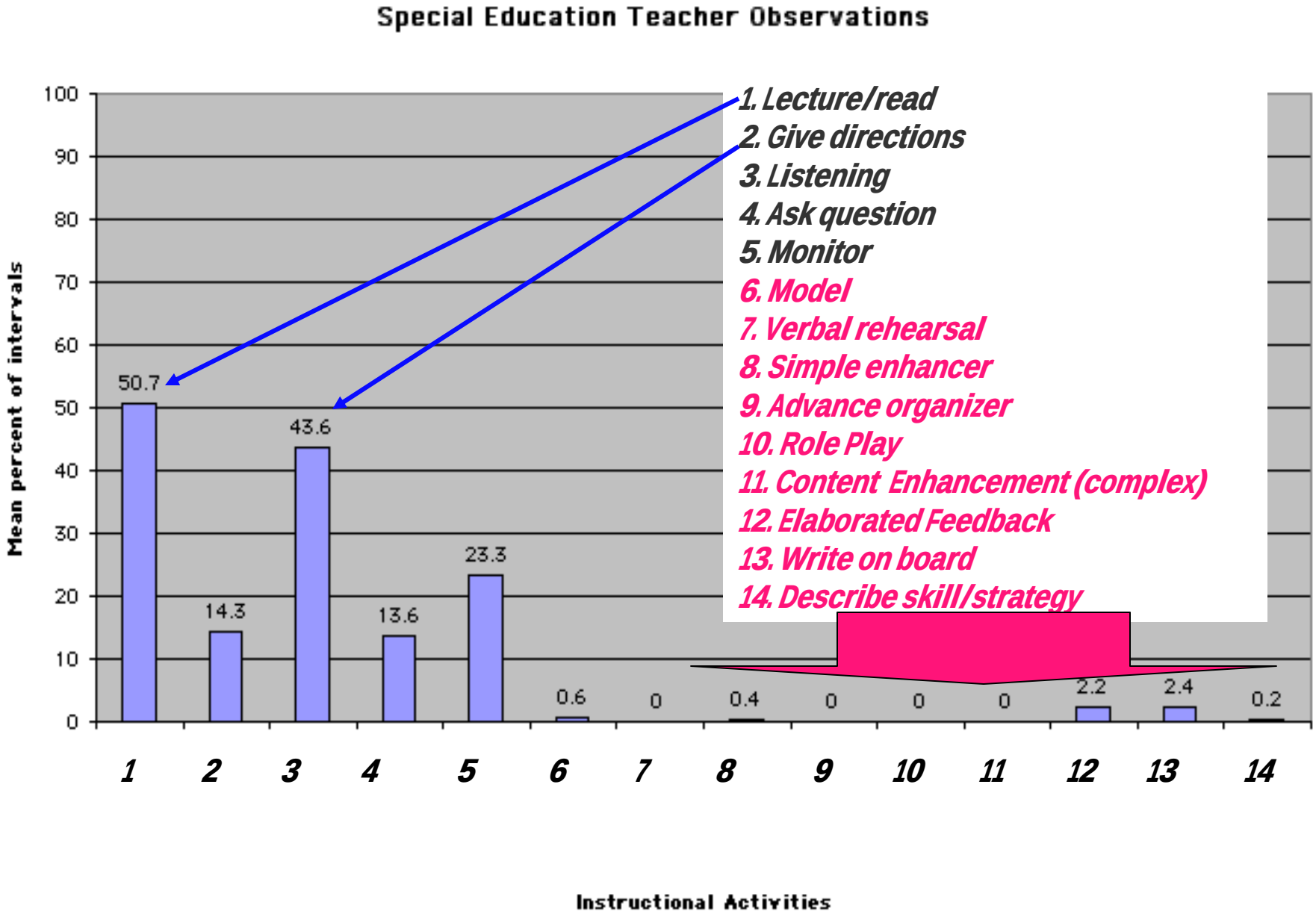

General Education Teacher Observation Interval Type
This is what we want in terms of instruction!
Mean percent of intervals
100
90
80
70
60
50
40
30
20
10
0
65.6
34.4
0
59.7
40.3
0
61.5
37.8
0
59.1
37.6
0
89.2
10.3
0
71.1
27.3
0
59.4
31.9
0
71.7
26.7
0
1U
1S
1R
2U
2S
2R
3U
3S
Schools
instructional
non-instructiona
research-based

Observation of Teacher Practice Study



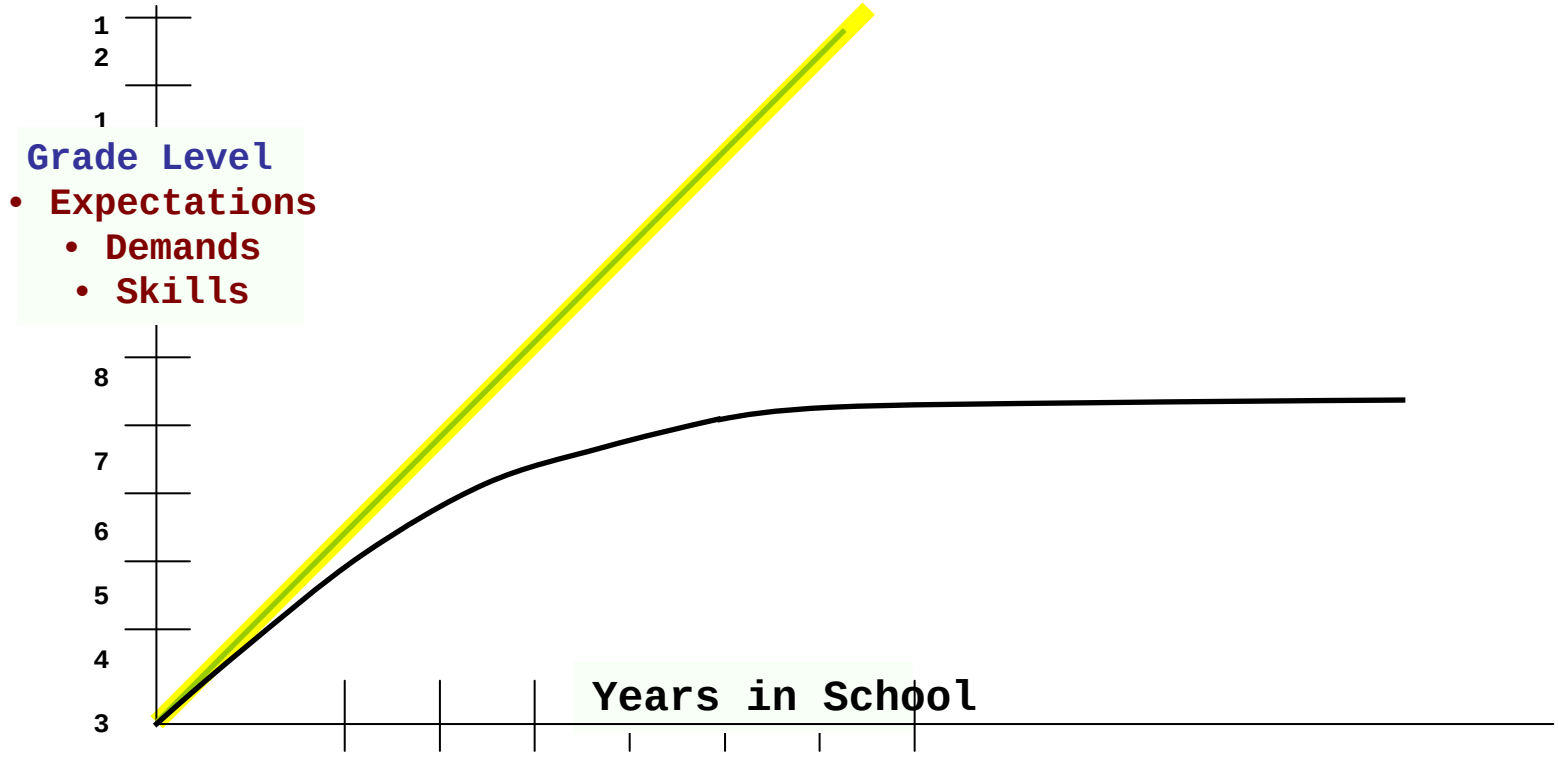
Mean percentage of intervals special education teachers were observed in various activities for each school.



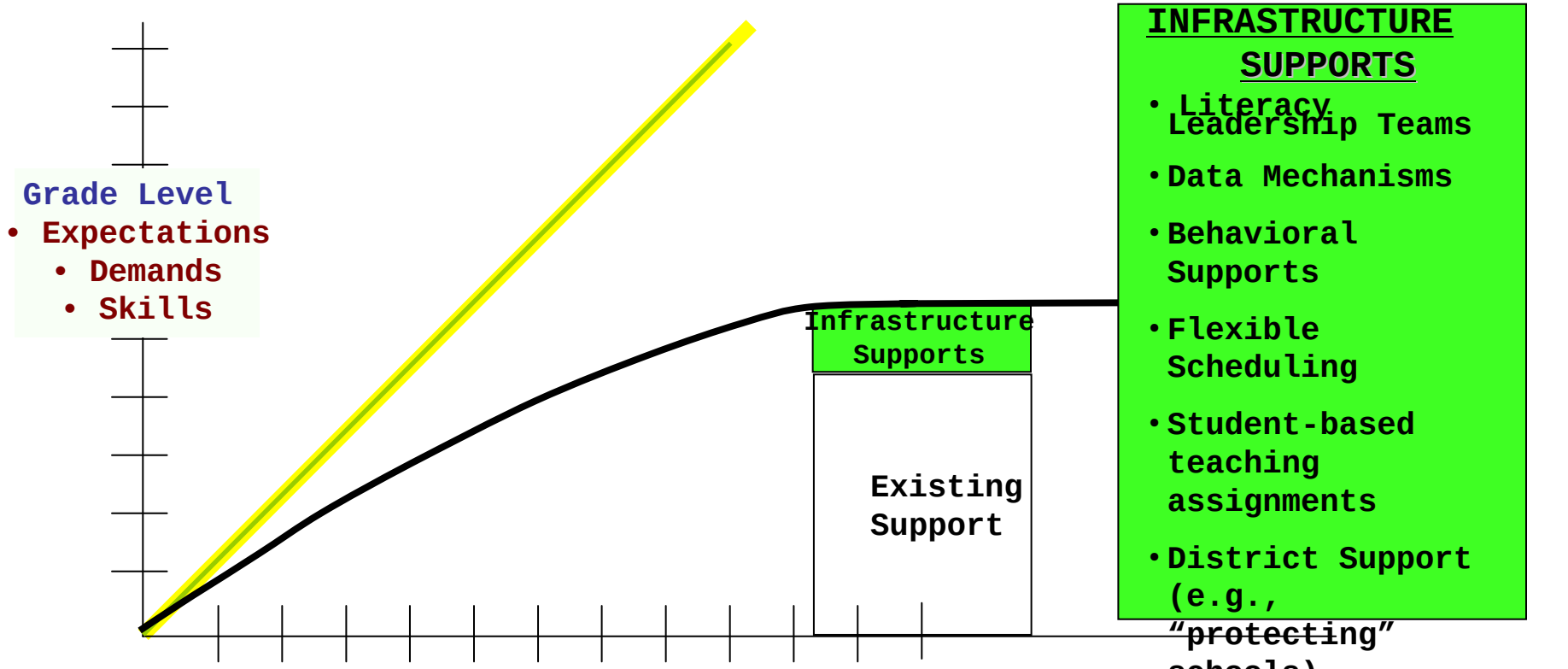

Special Education Teacher Observations
Mean percent of intervals
100
90
80
70
60
50
40
30
20
10
0
50.7
14.3
43.6
13.6
23.3
0.6
0
0.4
0
0
0
2.2
2.4
0.2
1
2
3
4
5
6
7
8
9
10
11
12
13
14
1. Lecture/read
2. Give directions
3. Listening
4. Ask question
5. Monitor
6. Model
7. Verbal rehearsal
8. Simple enhancer
9. Advance organizer
10. Role Play
11. Content Enhancement (complex)
12. Elaborated Feedback
13. Write on board
14. Describe skill/strategy
Instructional Activities

From 10,000′

The Performance Gap



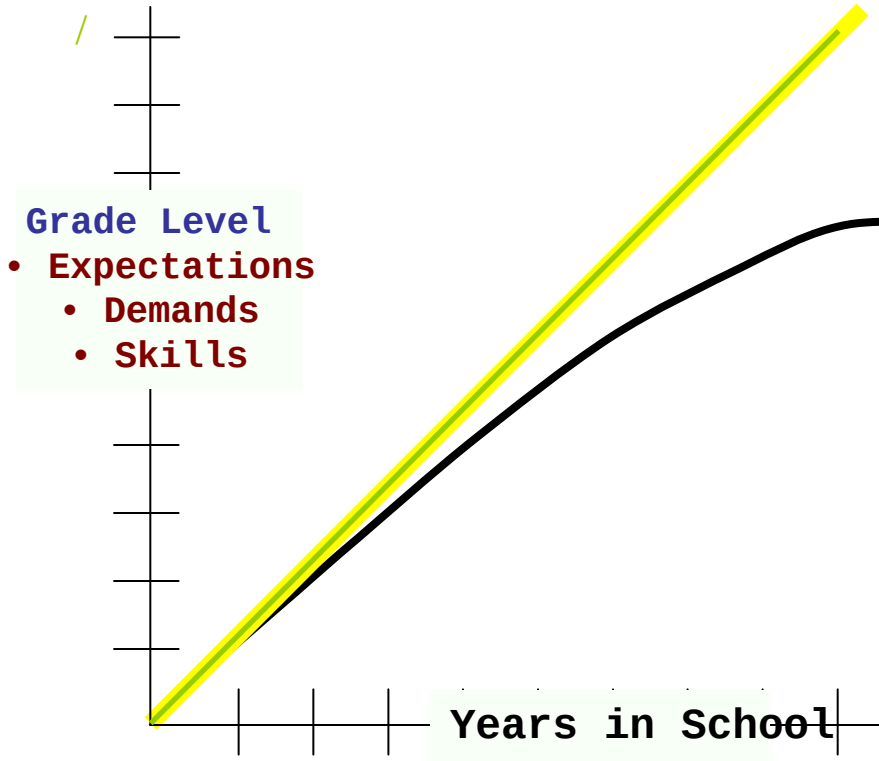
The Performance Gap

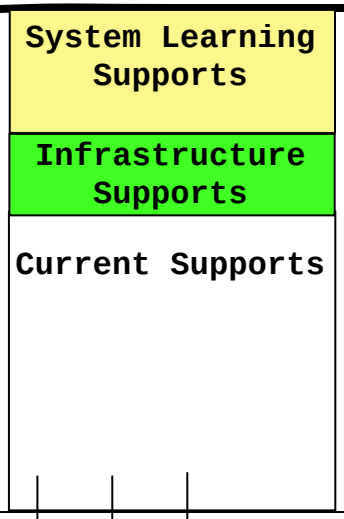


INFRASTRUCTURE SUPPORTS

- Literacy Leadership Teams
- Data Mechanisms
- Behavioral Supports
- Flexible Scheduling
- Student-based teaching assignments
- District Support (e.g., "protecting" schools)
- Internal accountability mechanisms

The Performance Gap

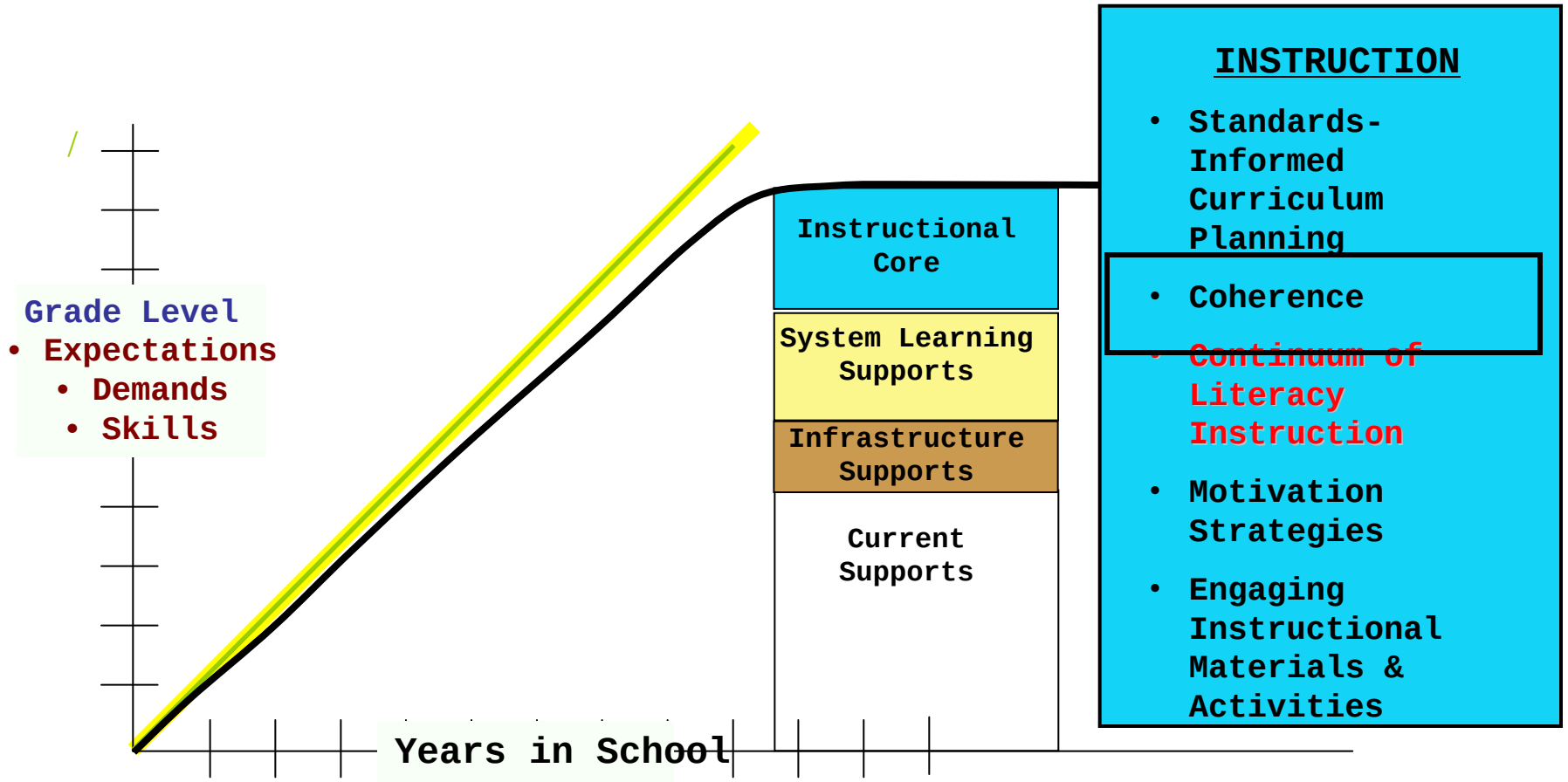




SYSTEM LEARNING SUPPORTS

- Protocols/time for observing, describing, analyzing practice
- Protocols/time for co-planning & collaboration
- Instructional Coaching
- Internal accountability ~~mechanisms~~

The Performance Gap



Questions

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

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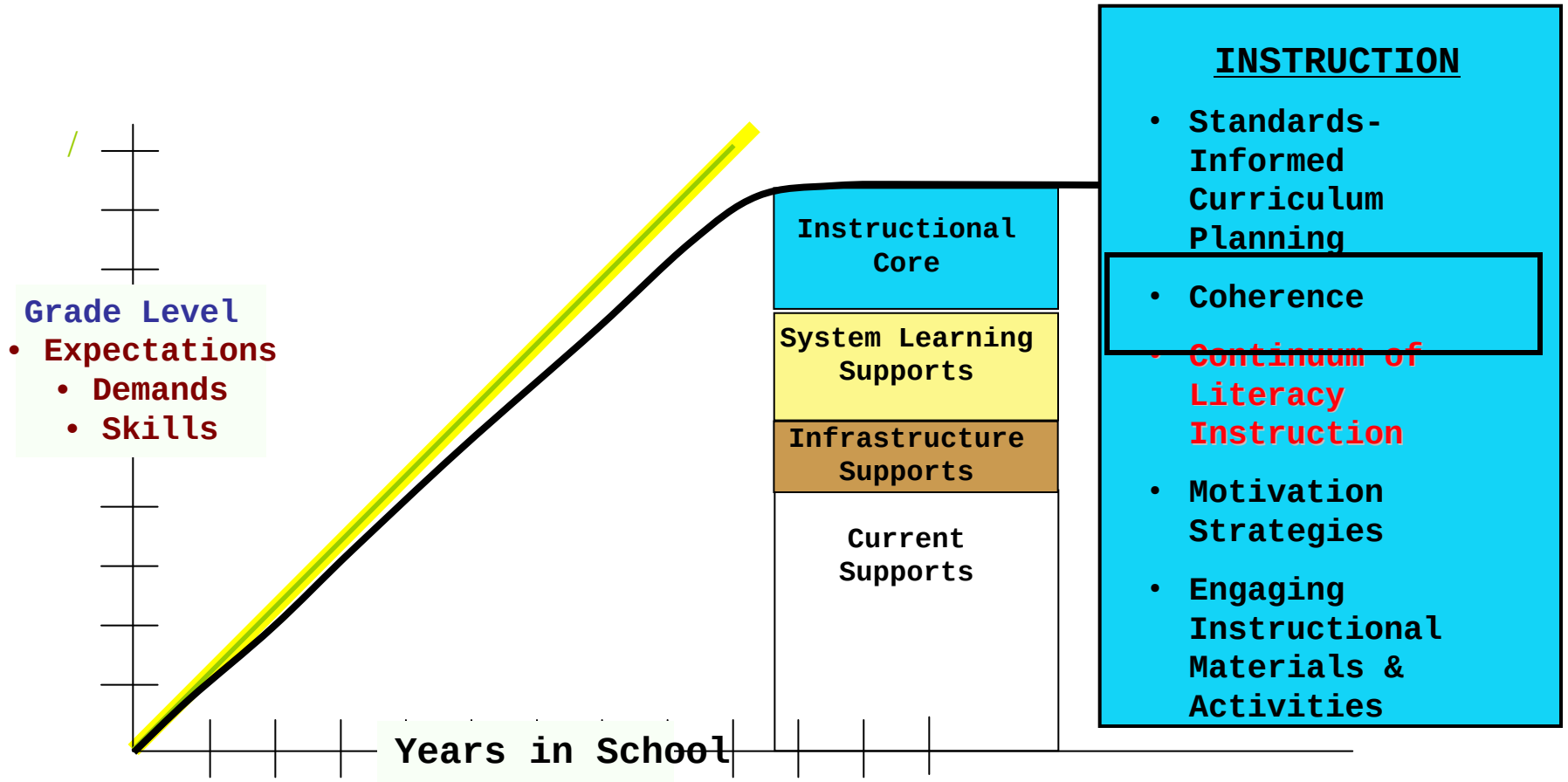
On the ground

The Performance Gap



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The 3 Defining Attributes

- Tiered
- Role differentiation
- Integrated

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Begin by....

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

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Screen for…..

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

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Then ask.....

Five questions about literacy supports

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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?

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Finally....

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

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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)

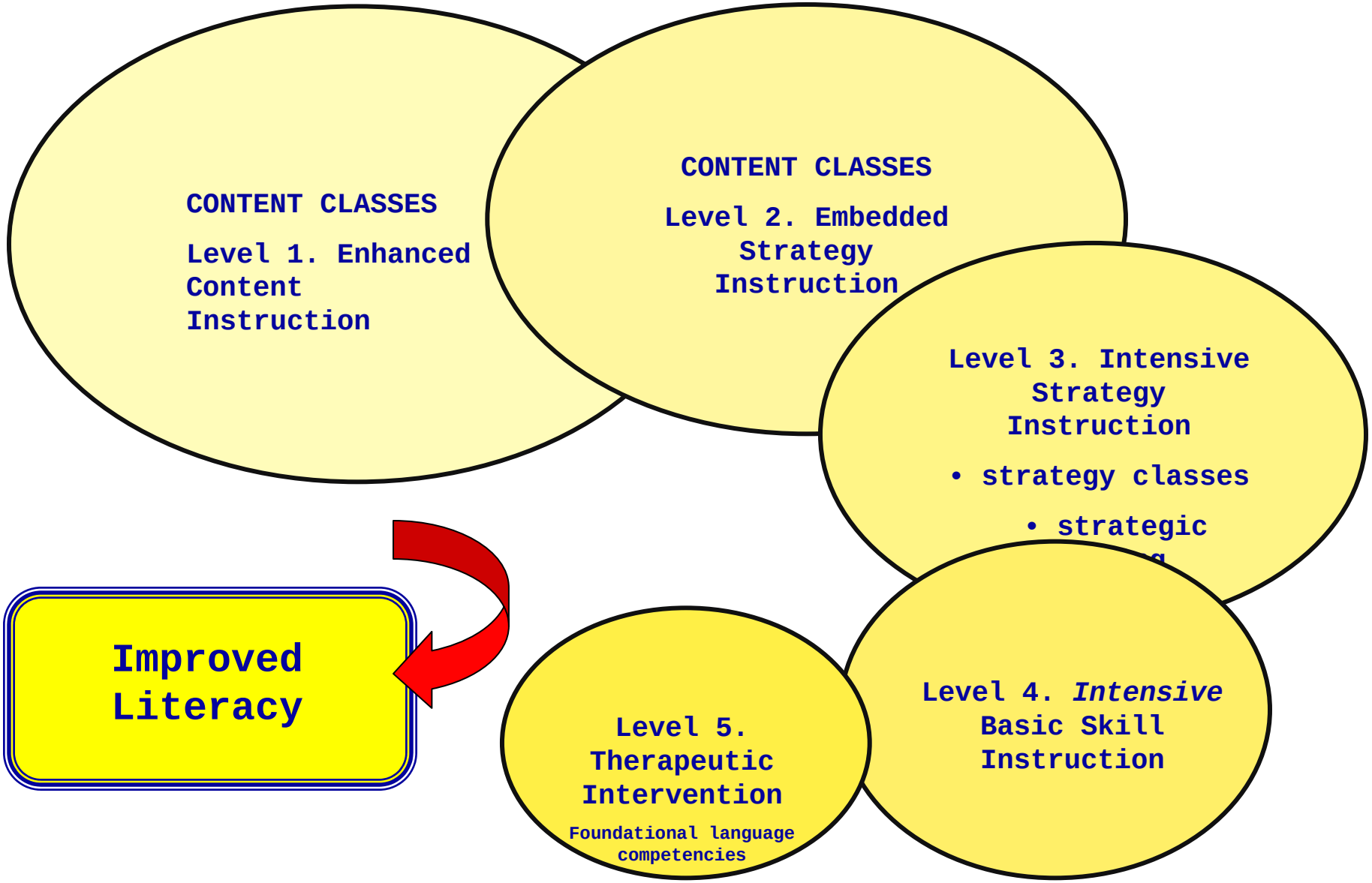
Level 4: **Intensive basic skill instruction** (mastery of entry level literacy skills at the 4th grade level)

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

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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

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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:

- ❑ Quantity
- ❑ Interest
- ❑ Relevance
- ❑ Abstractness
- ❑ Complexity
- ❑ Background
- ❑ Organization

Reaching enhancement decisions by selecting powerful...

Teaching Devices

Teaching strategically through explicit...

Teaching Routines

Evaluating enhancements

Revaluate outcomes

Comparison Table

COMPARING

Communicate Targeted Concepts
Obtain the Overall Concepts
Make lists of Known Characteristics
Pin down Like Characteristics
Assemble Like Categories
Record Unlike Characteristics
Identify Unlike Categories
Nail Down a Summary
Go Beyond the Basics

② Overall Concept

① Concept ① Concept

⑨ Extensions

③ Characteristics ③ Characteristics

⑤ Like Categories

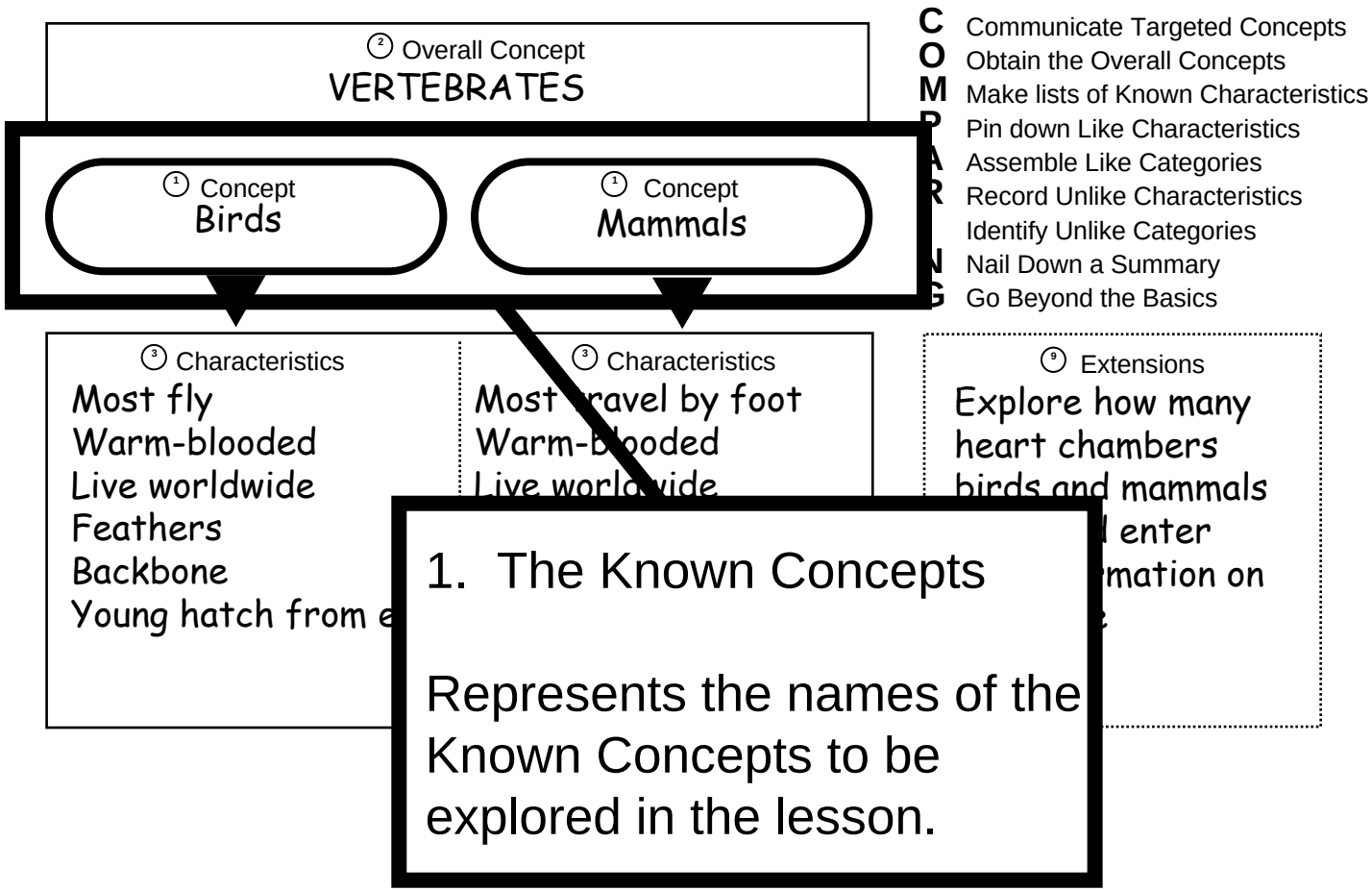
④ Like Characteristics

⑦ Unlike Categories

⑥ Unlike Characteristics ⑥ Unlike Characteristics

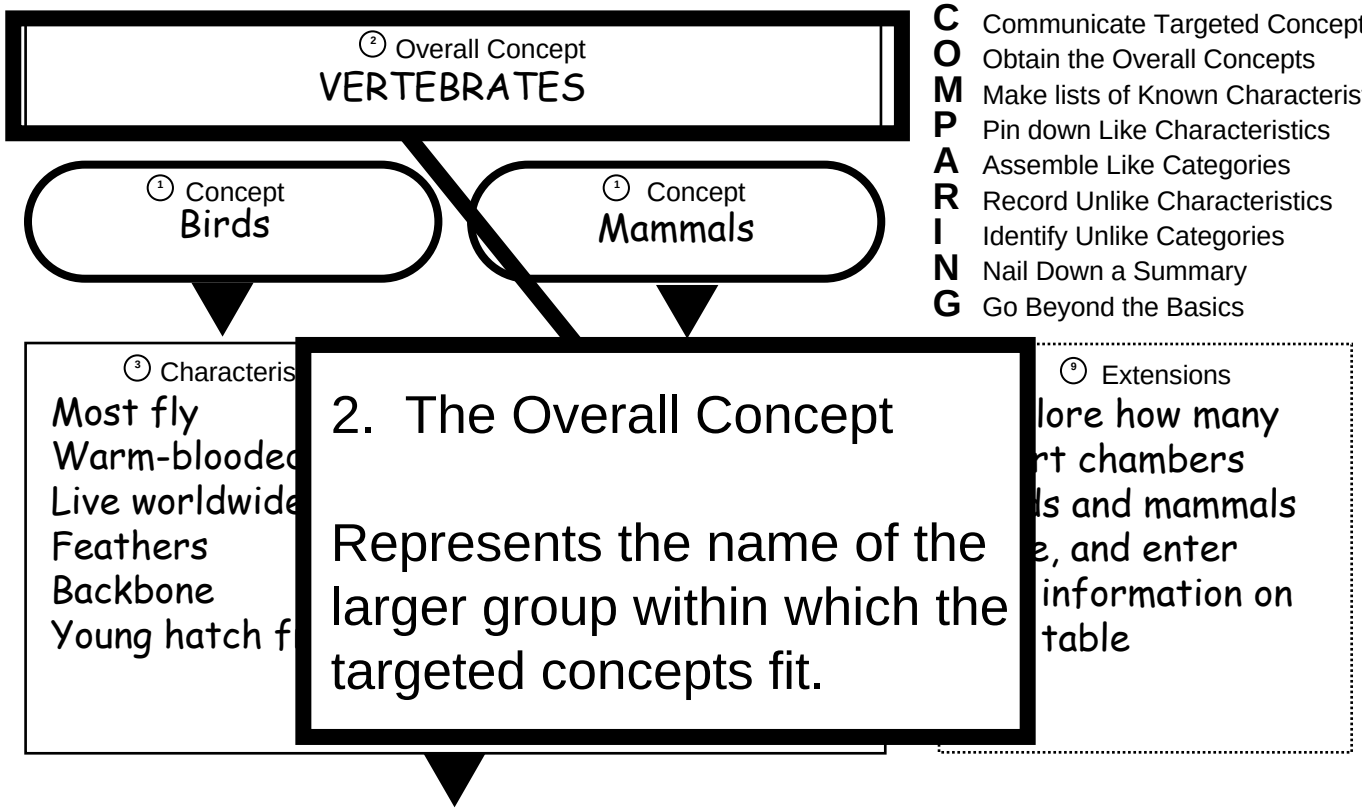
⑧ Summary

Comparison Table

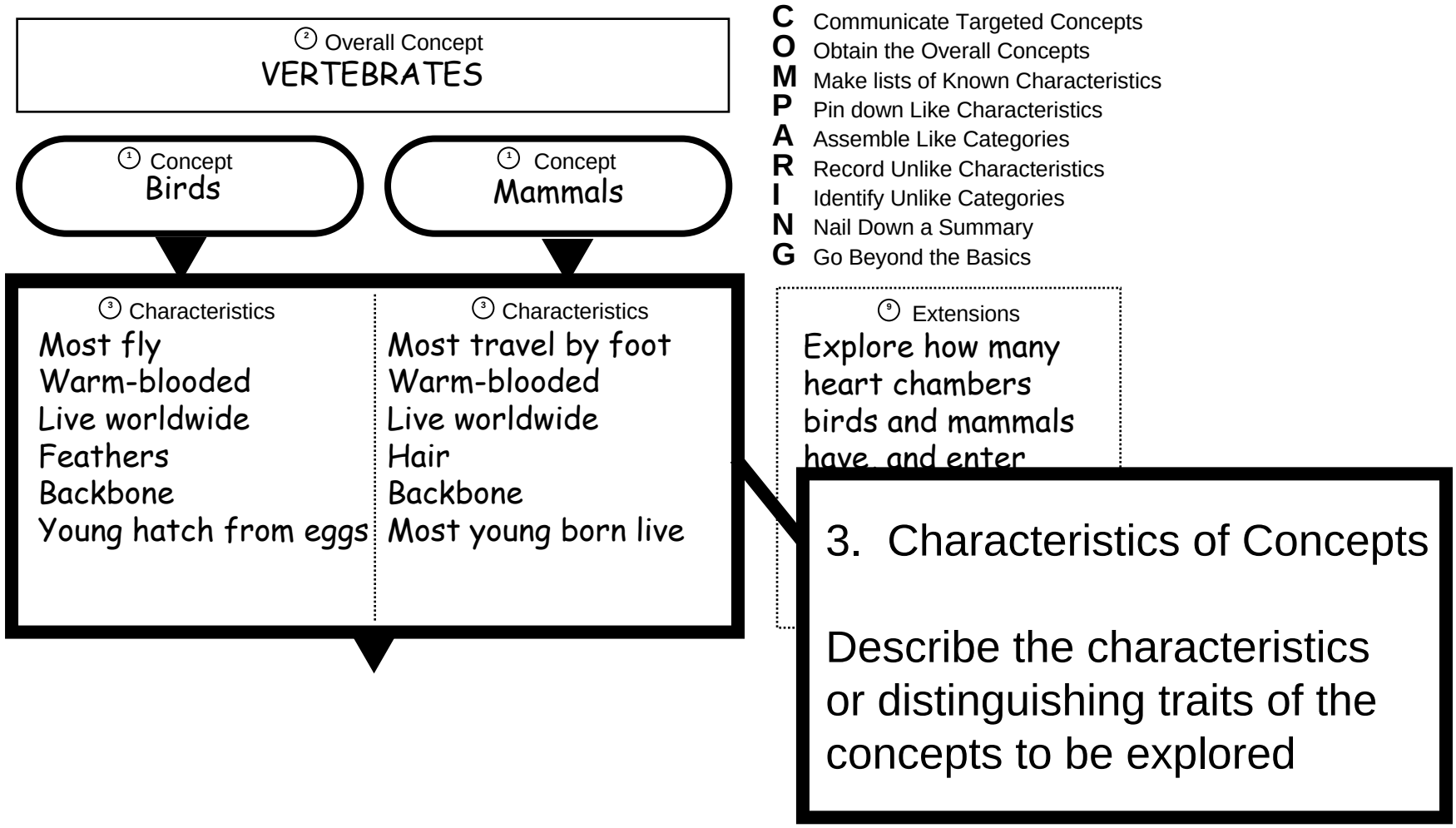


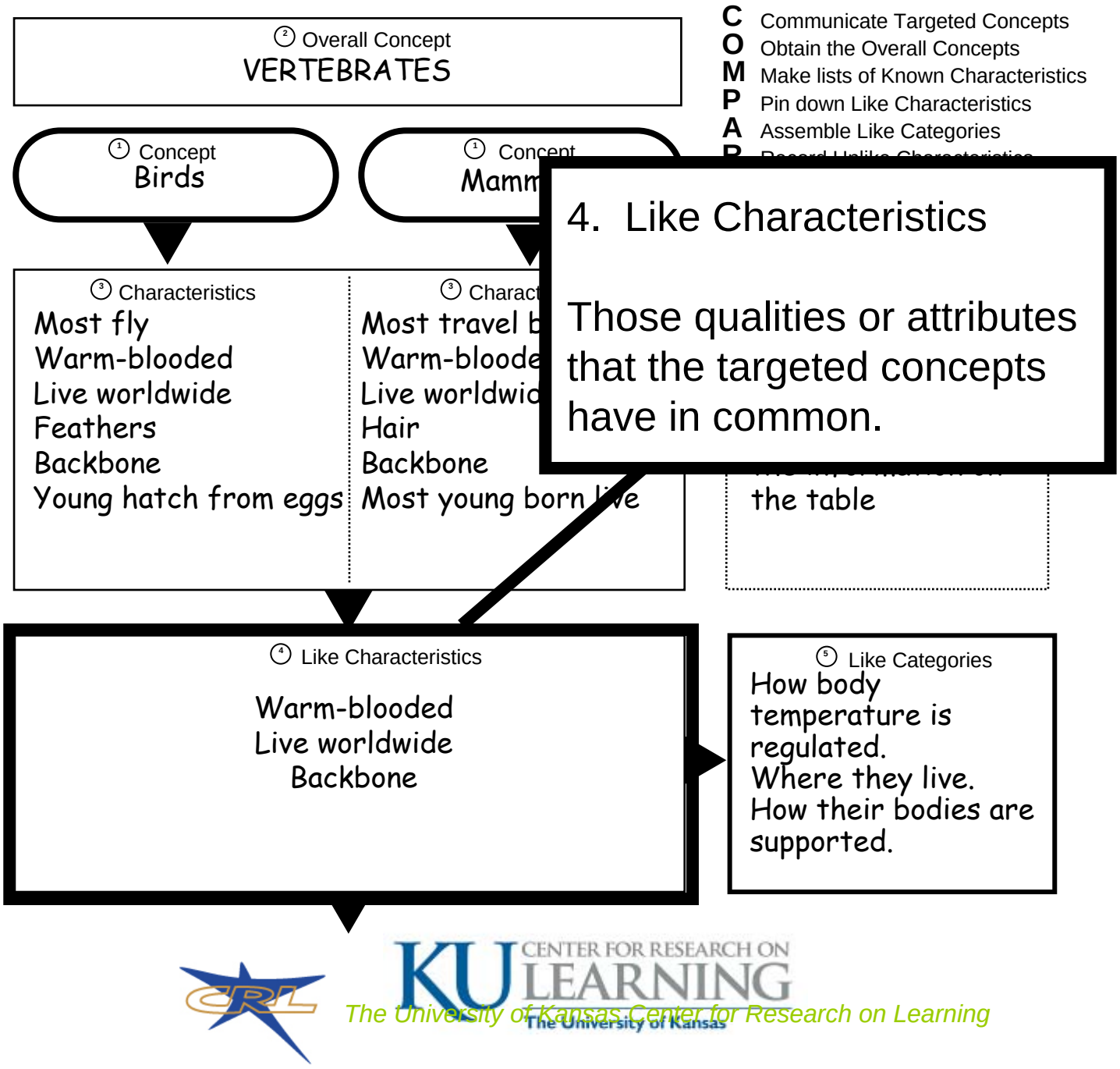
C Communicate Targeted Concepts
O Obtain the Overall Concepts
M Make lists of Known Characteristics
P Pin down Like Characteristics
A Assemble Like Categories
R Record Unlike Characteristics
Identify Unlike Categories
N Nail Down a Summary
G Go Beyond the Basics

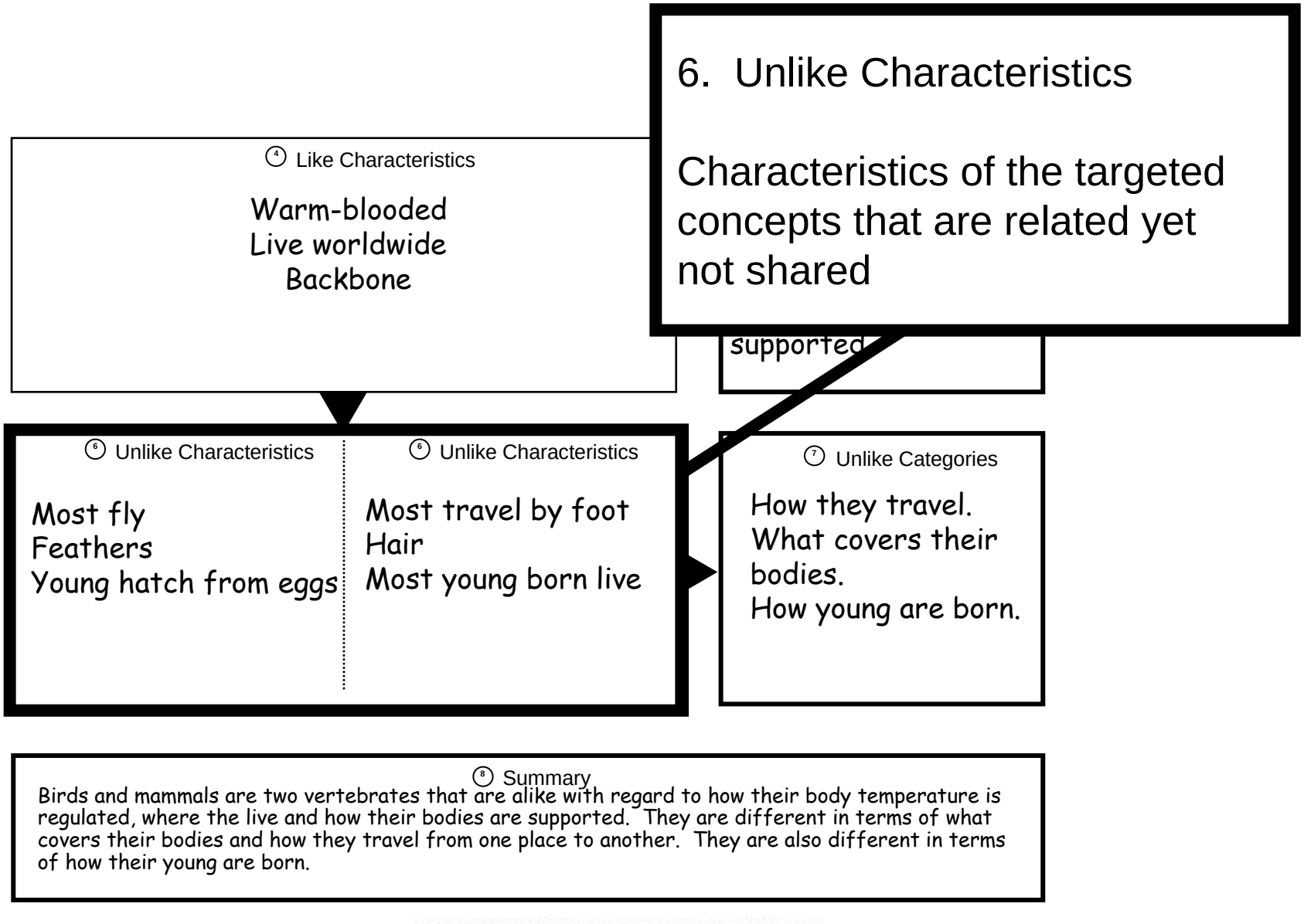
Comparison Table

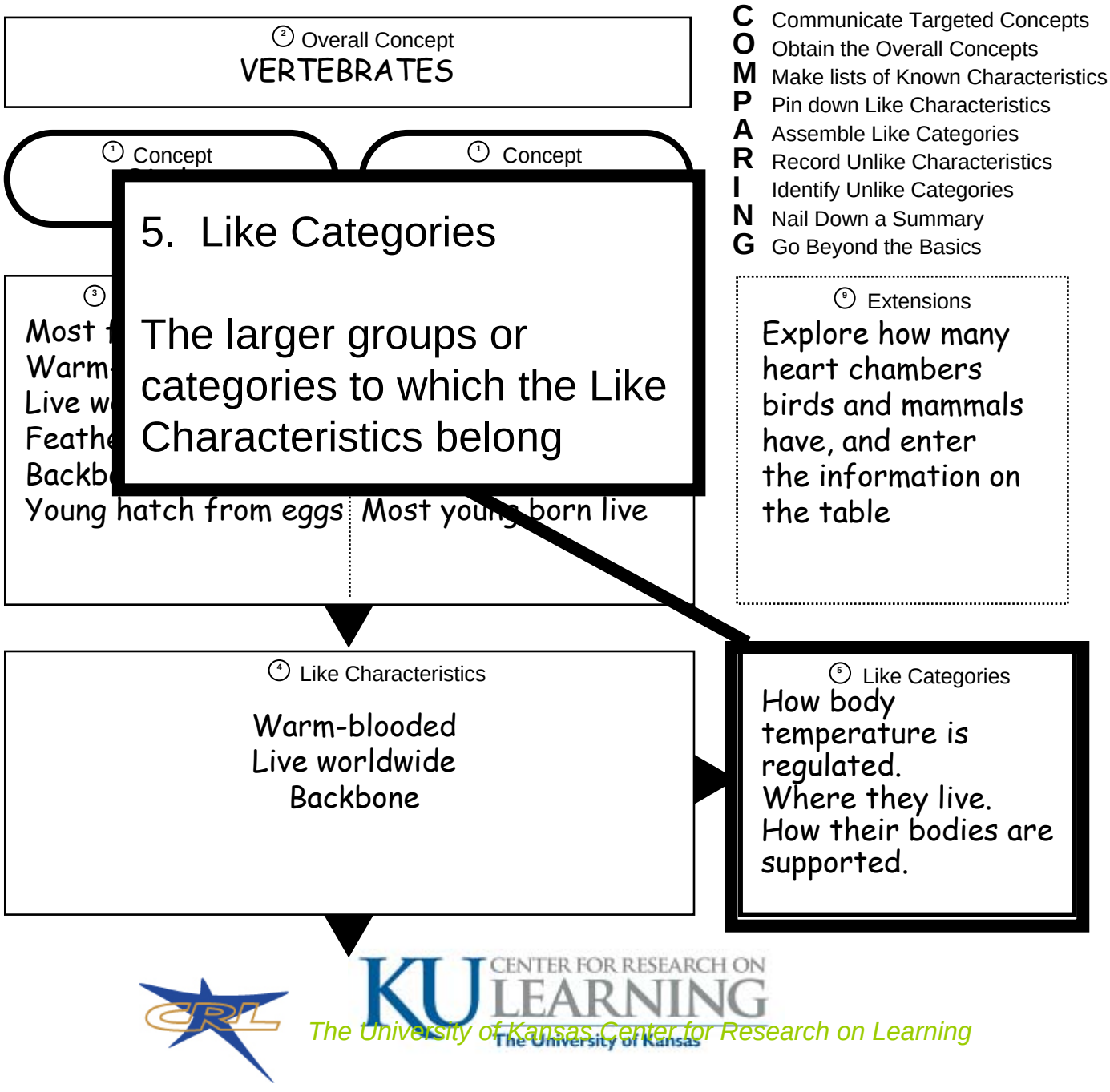


Comparison Table




C Communicate Targeted Concepts
O Obtain the Overall Concepts
M Make lists of Known Characteristics
P Pin down Like Characteristics
A Assemble Like Categories
2 Overall Concept
VERTEBRATES
1 Concept
Birds
1 Concept
Mamm
3 Characteristics
Most fly
Warm-blooded
Live worldwide
Feathers
Backbone
Young hatch from eggs
3 Charact
Most travel b
Warm-bloode
Live worldwid
Hair
Backbone
Most young born live
the table
4. Like Characteristics
Those qualities or attributes that the targeted concepts have in common.
4 Like Characteristics
Warm-blooded
Live worldwide
Backbone
5 Like Categories
How body temperature is regulated.
Where they live.
How their bodies are supported.


6. Unlike Characteristics
Characteristics of the targeted concepts that are related yet not shared
4 Like Characteristics
Warm-blooded
Live worldwide
Backbone
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 the 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
⑨ 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.
COMPARING
C Communicate Targeted Concepts
O Obtain the Overall Concepts
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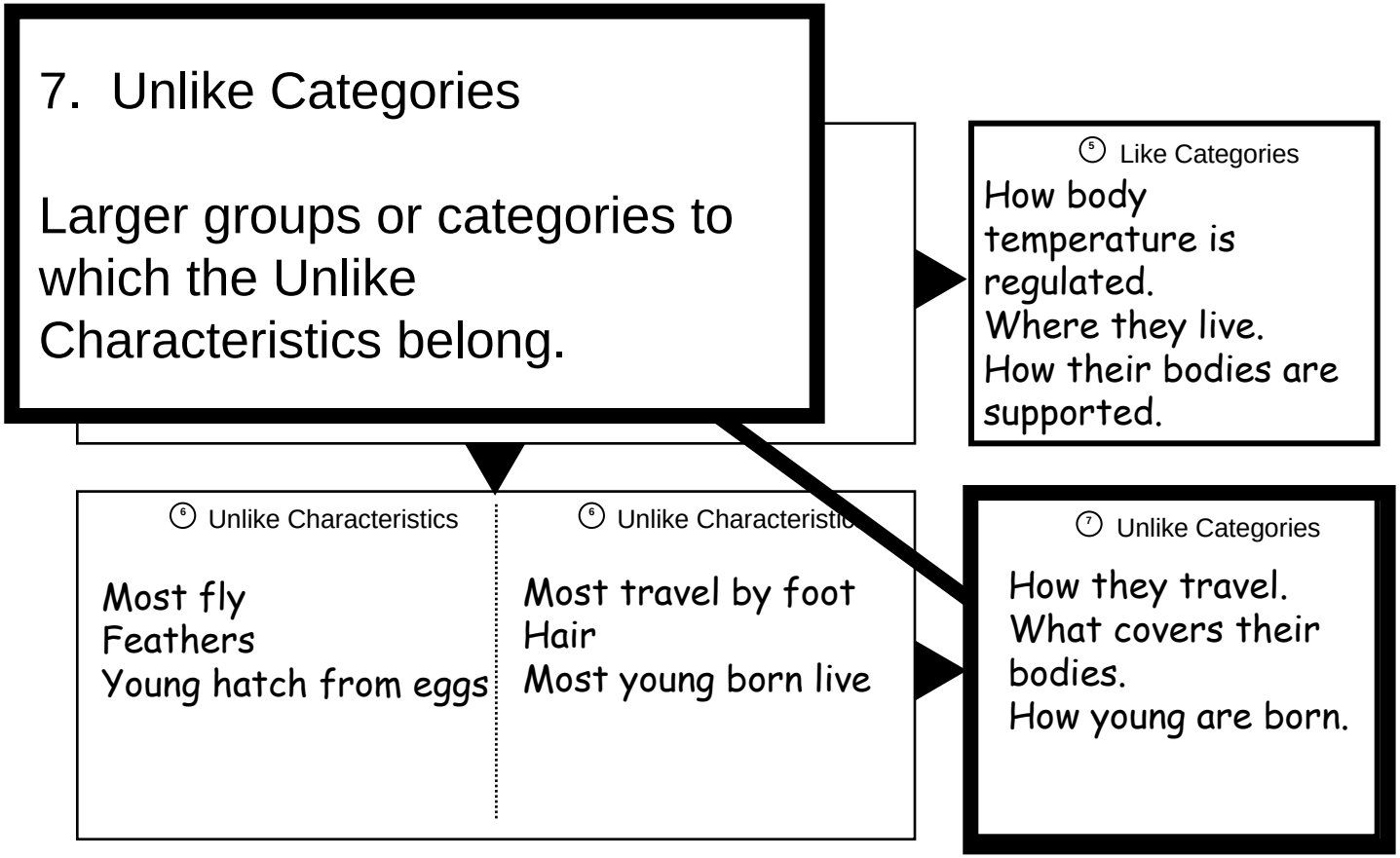
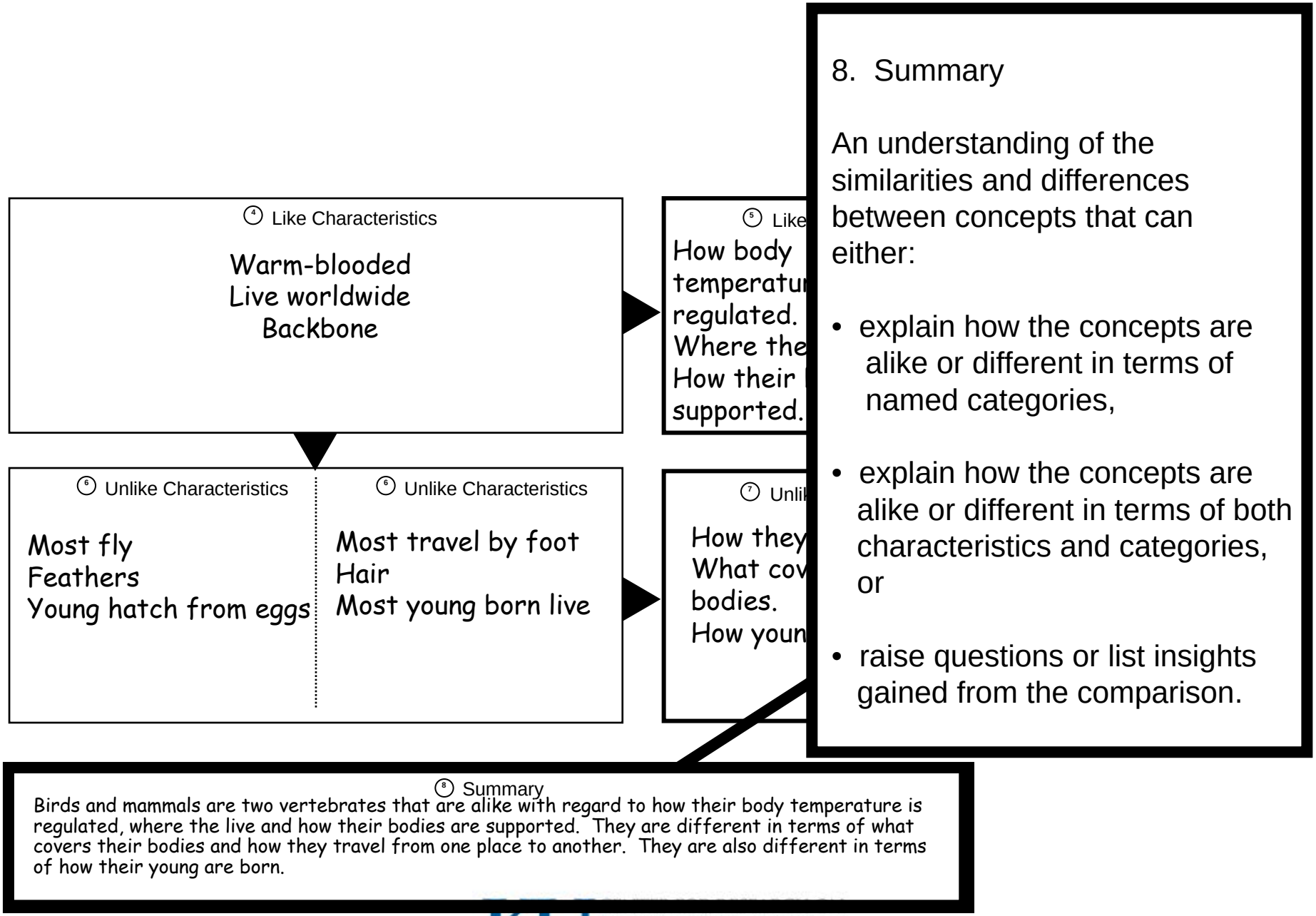


8 Summary

Birds and mammals are two vertebrates that are alike with regard to how their body temperature is regulated, where the 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
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How body
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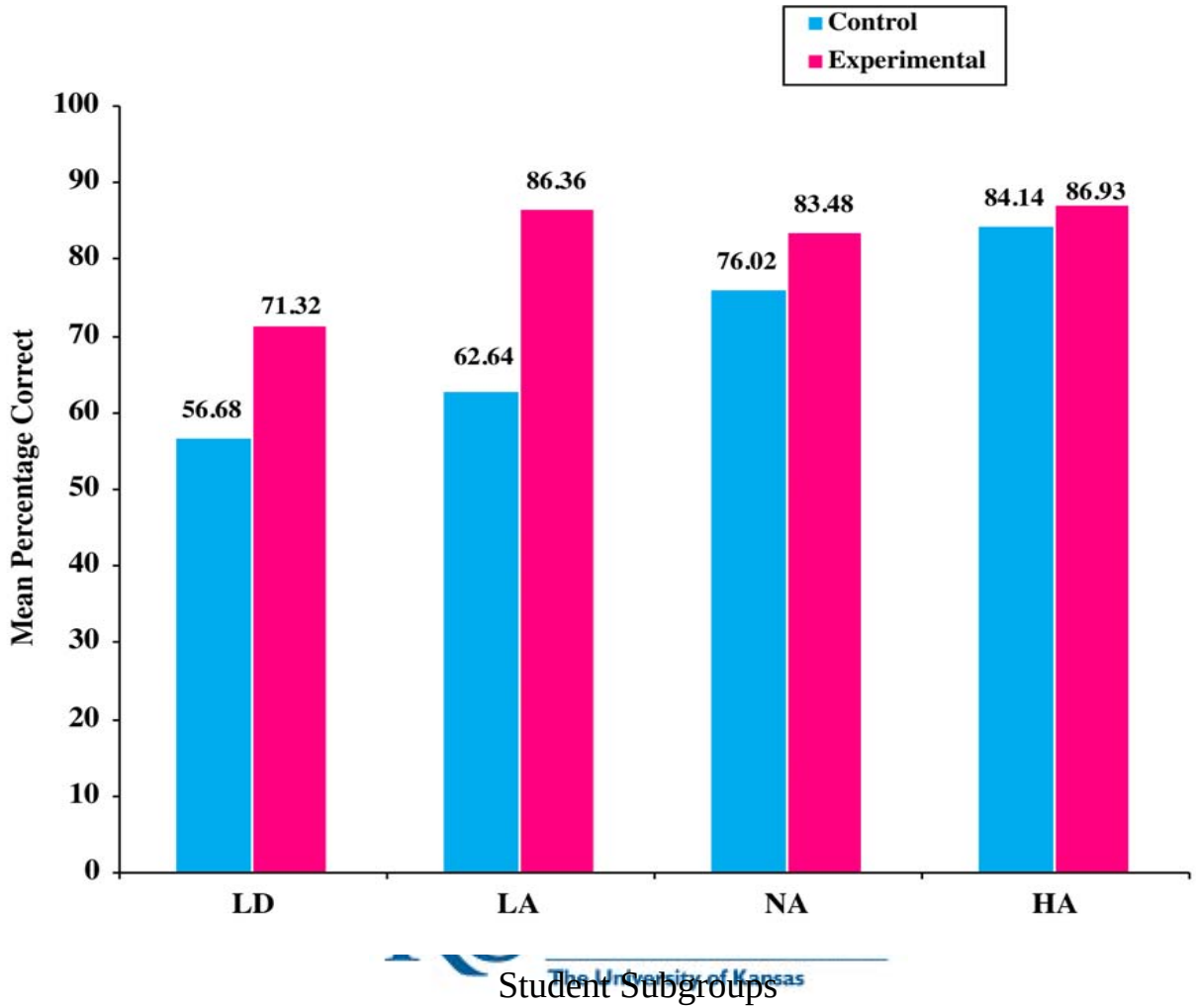
⑥ Unlike Characteristics
Most fly
Feathers
Young hatch from eggs
⑥ Unlike Characteristics
Most travel by foot
Hair
Most young born live
⑦ Unli
How they
What cov
bodies.
How youn
8. Summary
An understanding of the similarities and differences between concepts that can either:
• explain how the concepts 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 the 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

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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?

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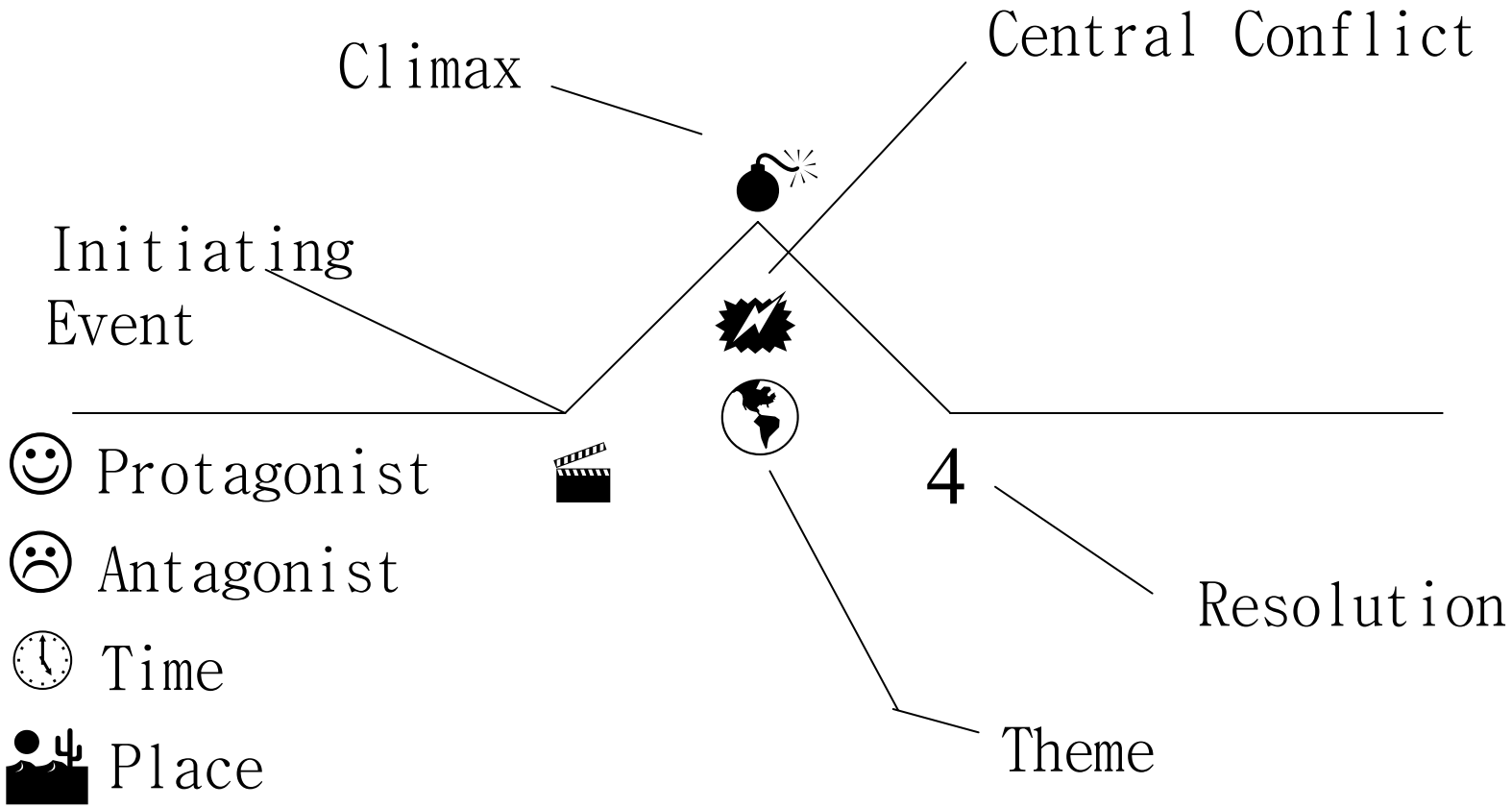
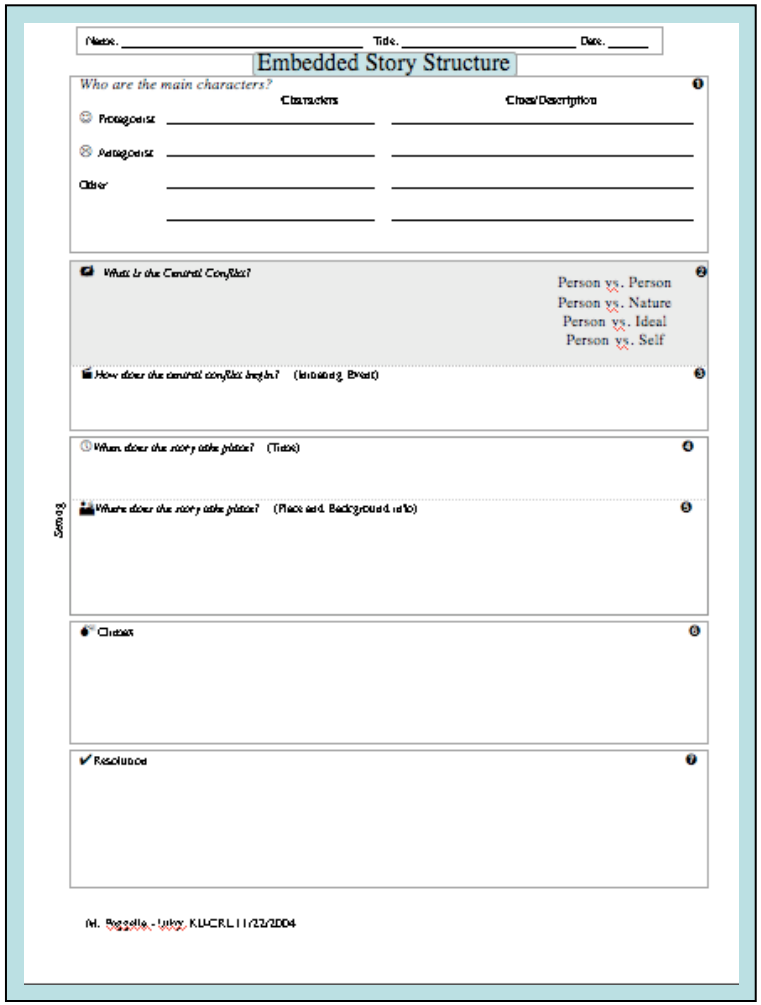
Story Structure Analysis



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).

The ESS Organizer



Name: _____ Title: _____ Date: _____

Embedded Story Structure

Who are the main characters?

Characters	Clues/Description
Protagonist	
Antagonist	
Other	

What is the Central Conflict?

Person vs. Person
Person vs. Nature
Person vs. Ideal
Person vs. Self

How does the central conflict begin? (Inciting Event)

When does the story take place? (Time)

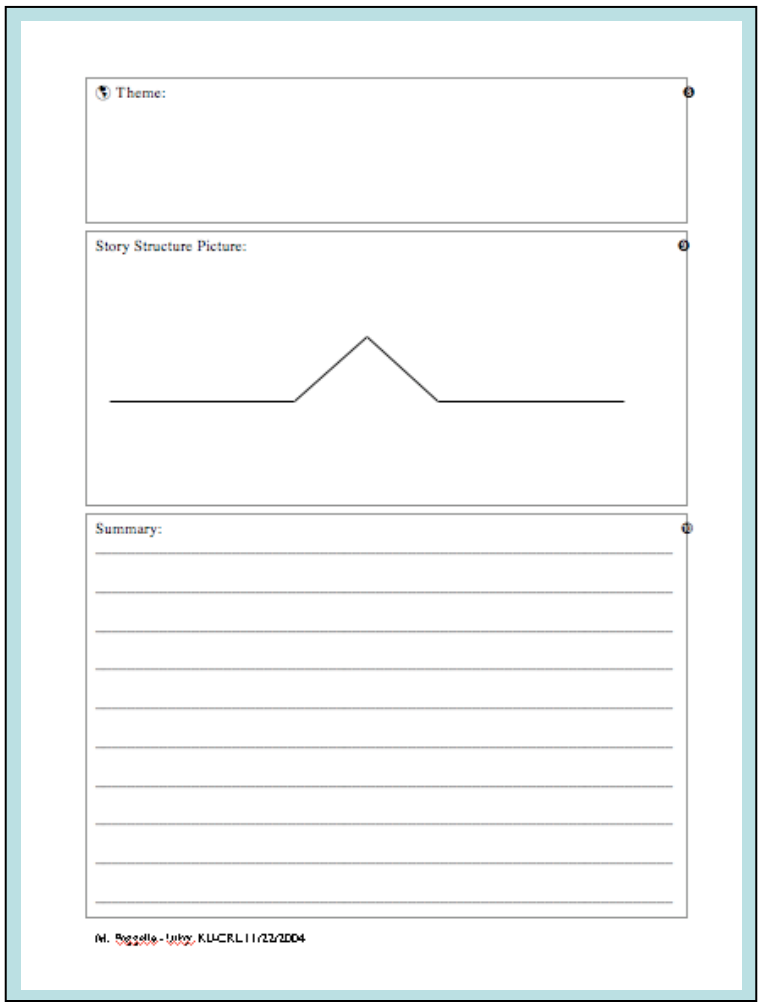
Where does the story take place? (Place and Background info)

Setting

Climax

Resolution

M. Baggetta - Lyhy KU-CRLT 11/22/2004



Theme:

Story Structure Picture:

Summary:

M. Baggetta - Lyhy KU-CRLT 11/22/2004

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

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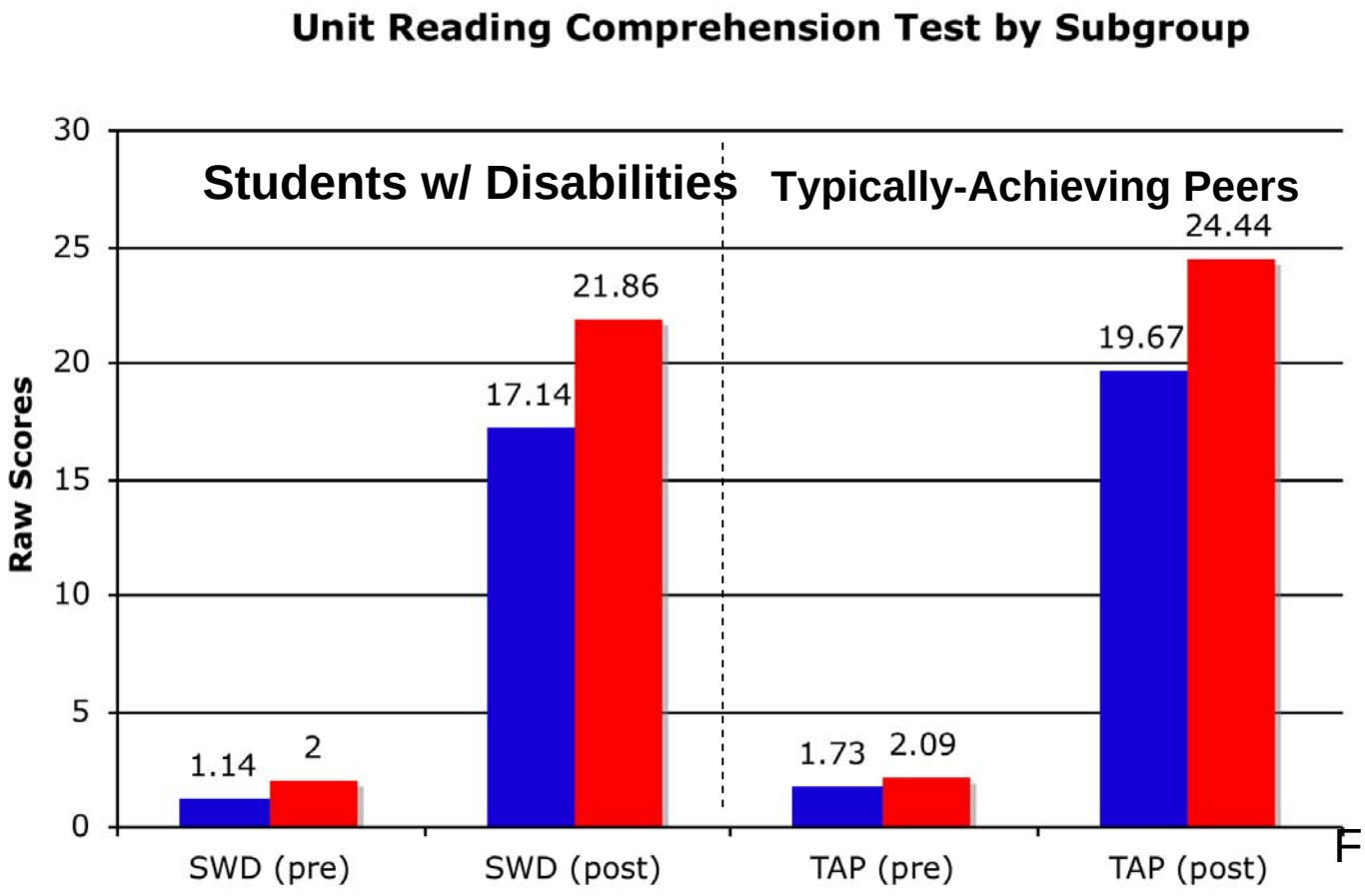
Results: Summative



Time*Condition* Subgroup

Wilks'Λ = 99,
$F(1,75)= .62$, $p=.433$
$\eta^2 =.008$

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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.

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Word Families

“port” – to carry

import	*export*
report	*porter*
deport	*support*
important	*transport*

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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!

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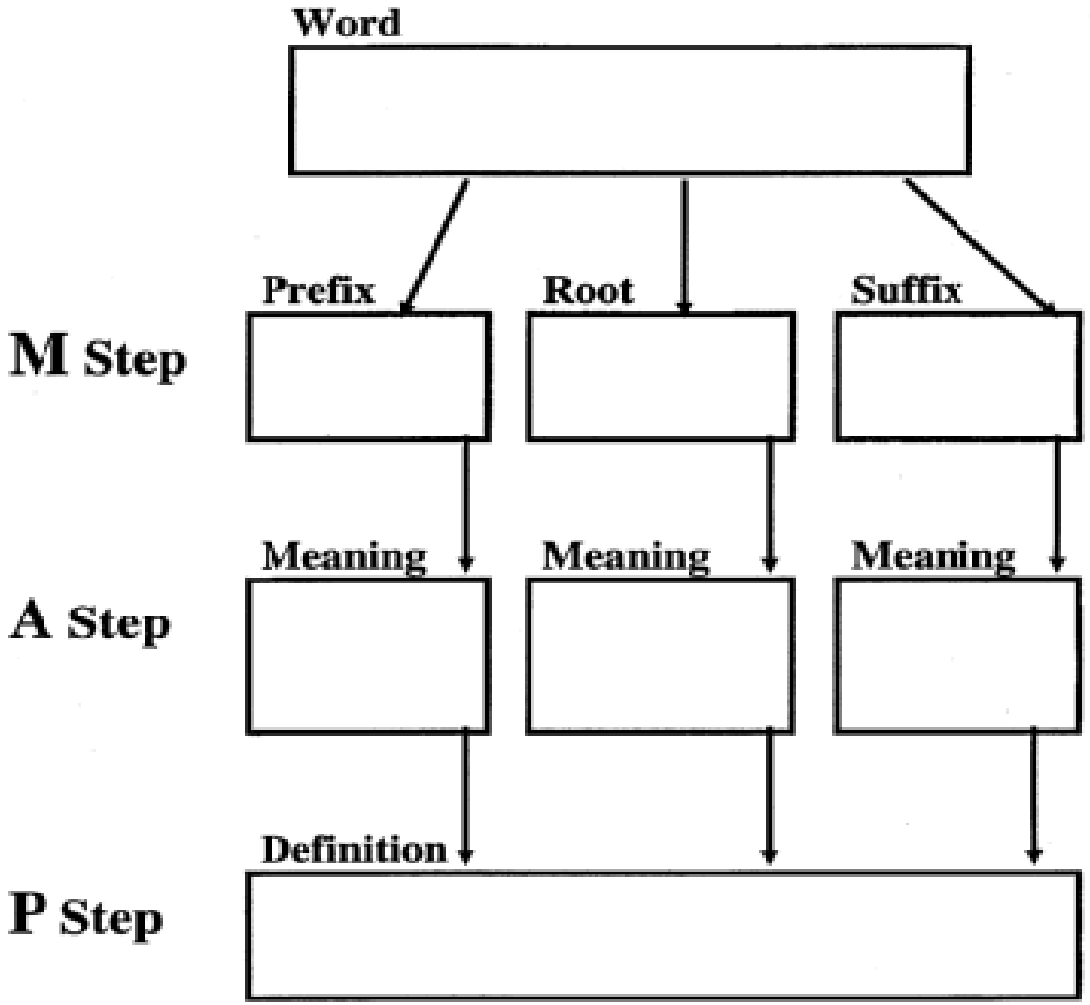
WORD MAP



S ee if you're right!

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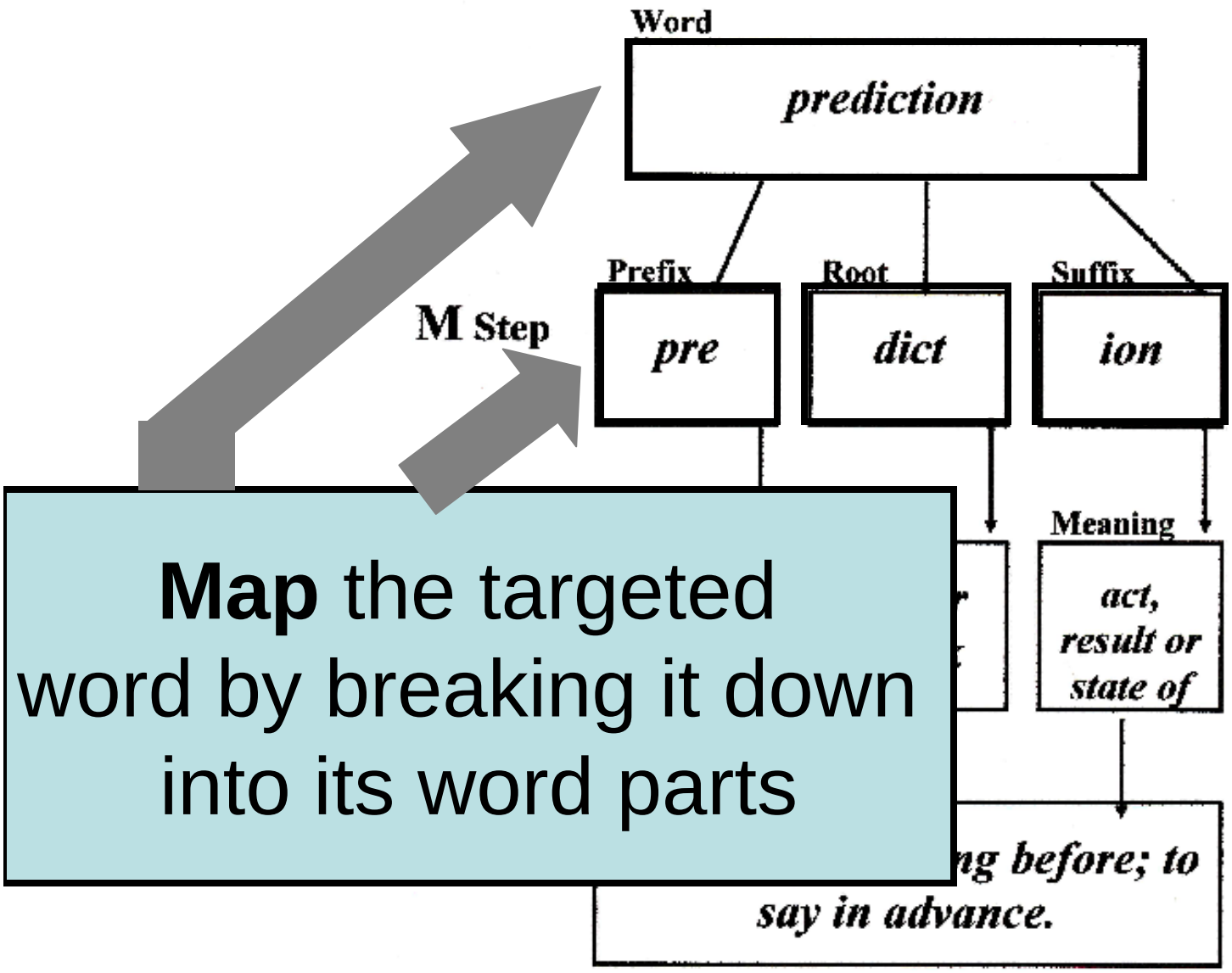
Cue Card #13

WORD MAP



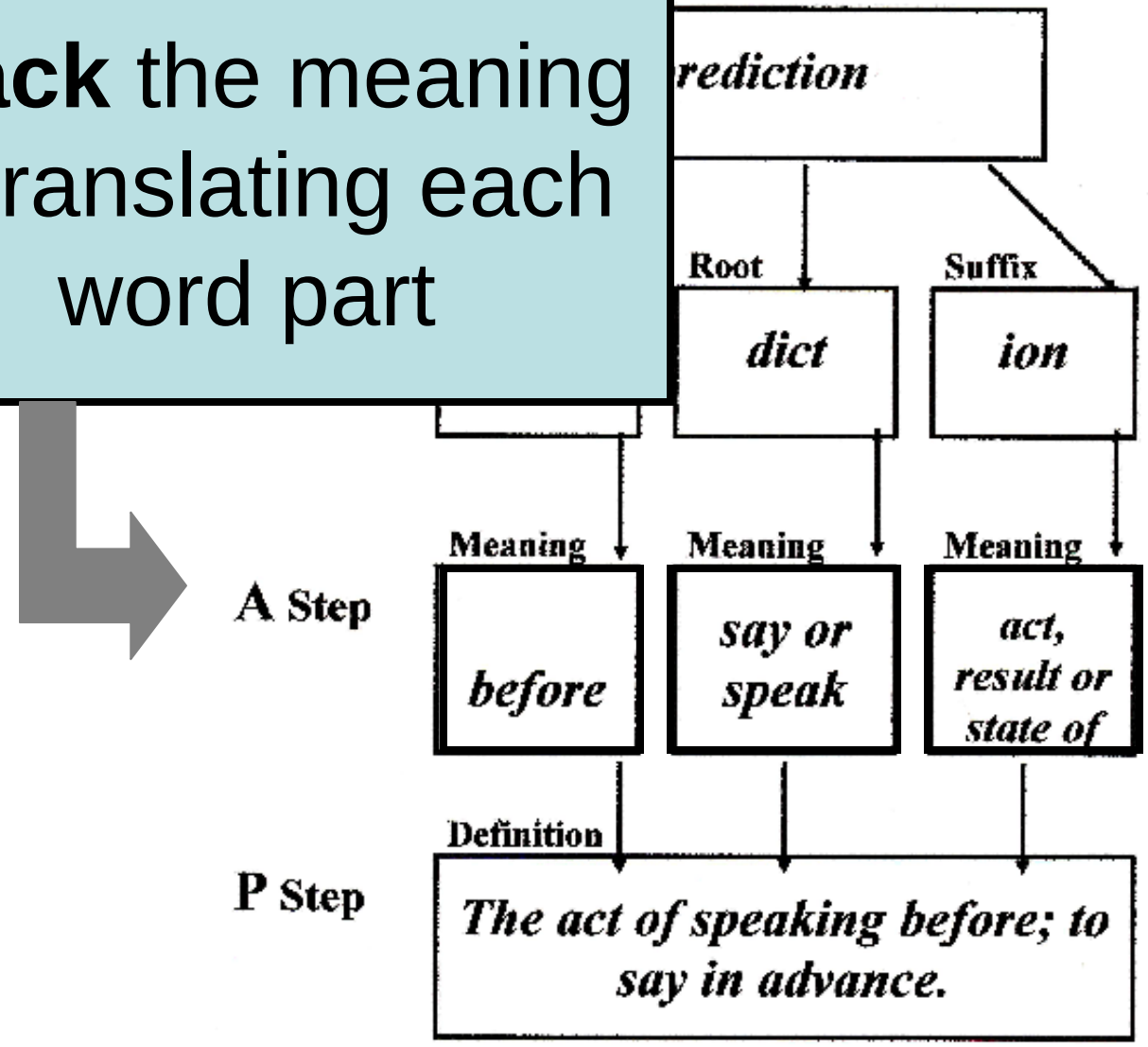
Map the targeted word by breaking it down into its word parts

S ee if you're right!

Cue Card #13

WORD MAP

Attack the meaning by translating each word part

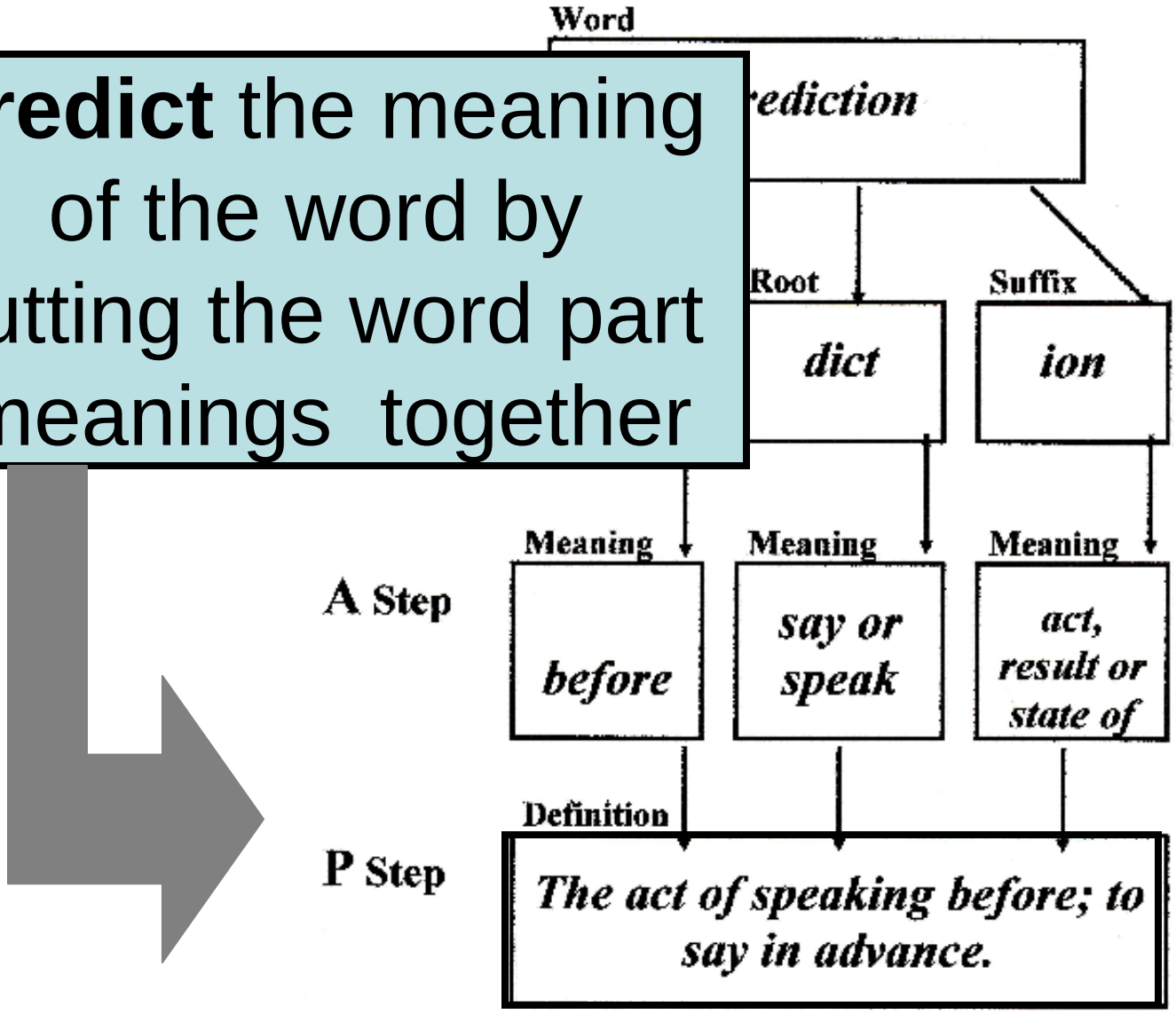


See if you're right!

Cue Card #13

WORD MAP

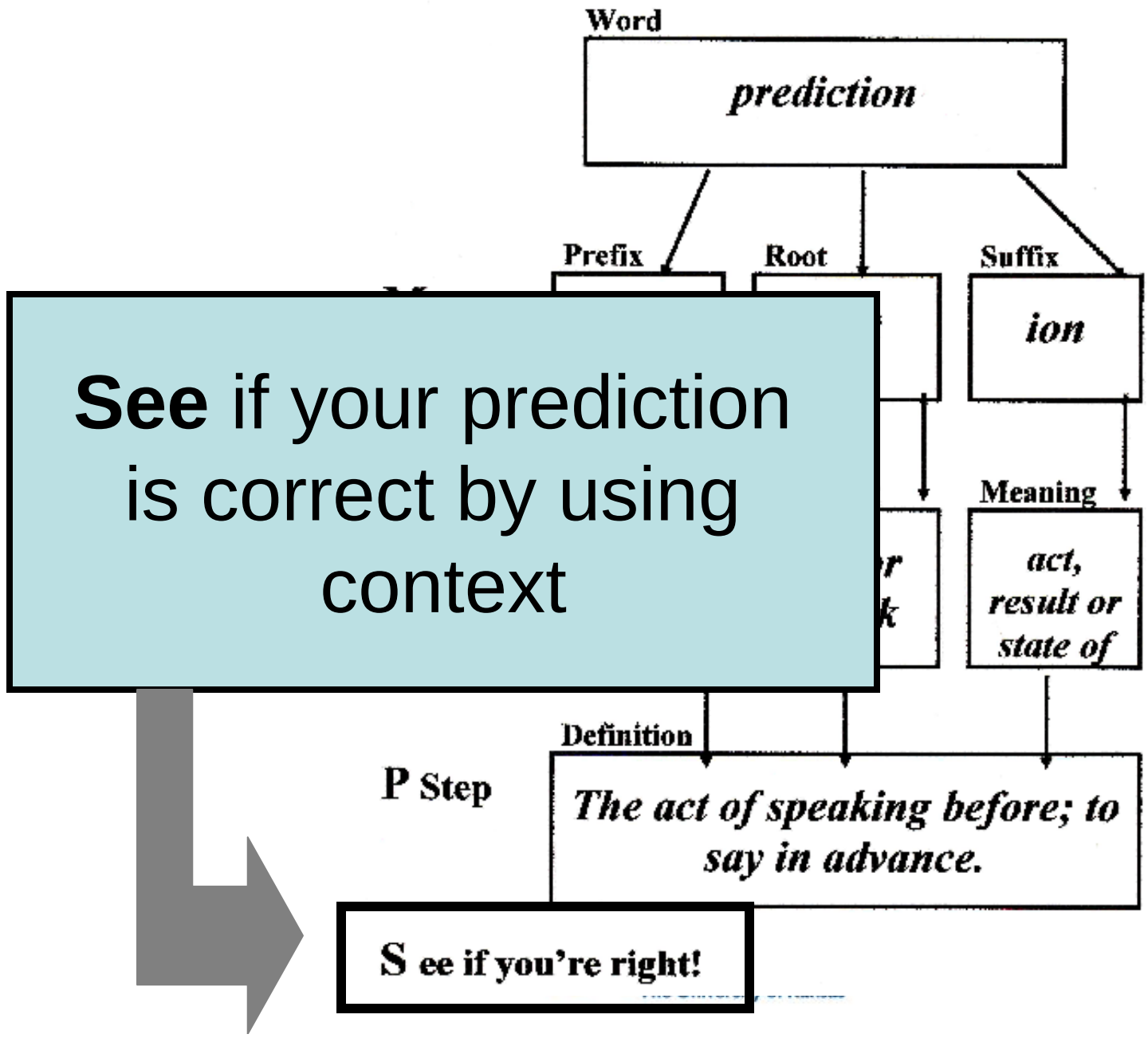
Predict the meaning of the word by putting the word part meanings together



S ee if you're right!

Cue Card #13

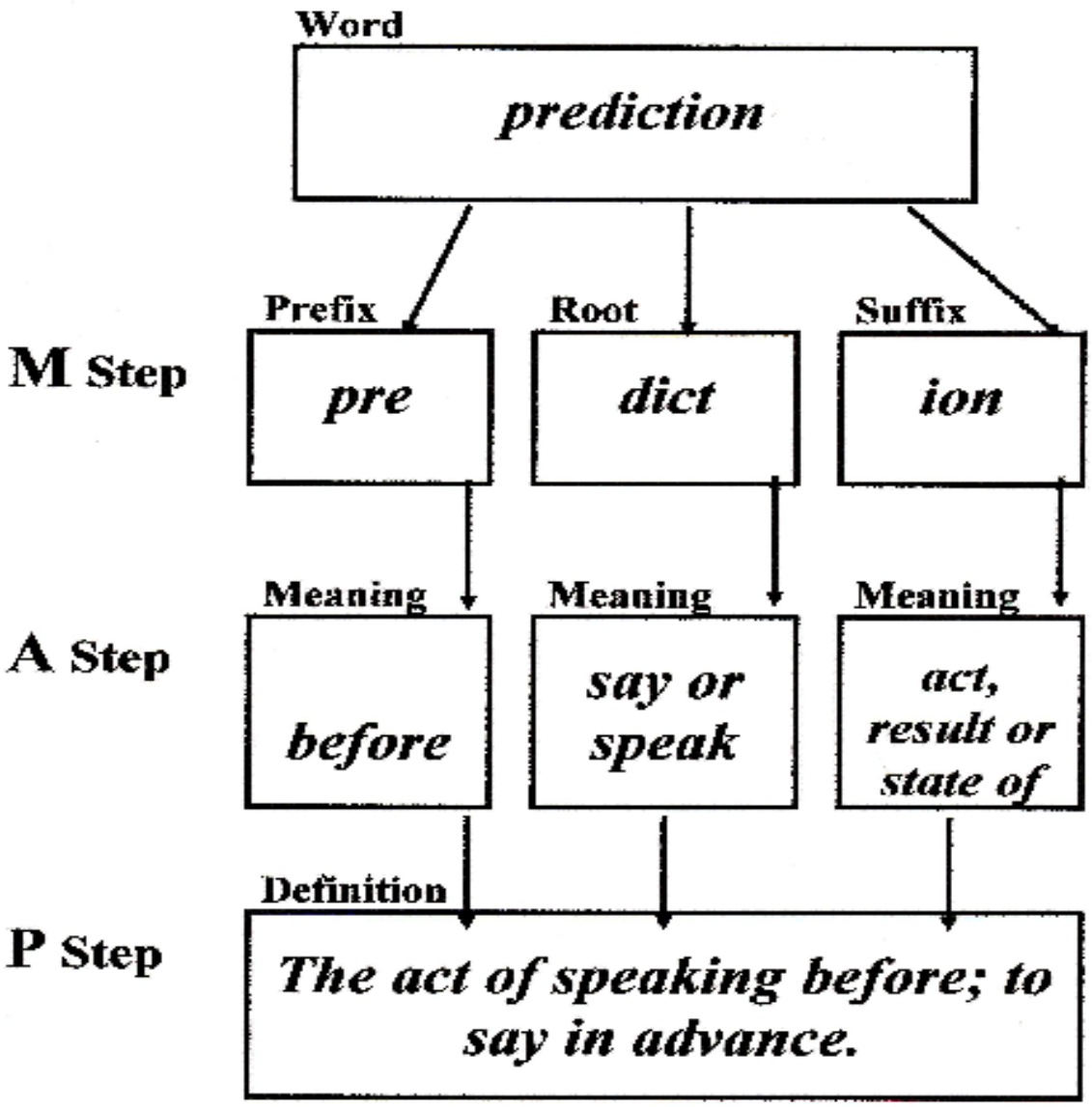
WORD MAP



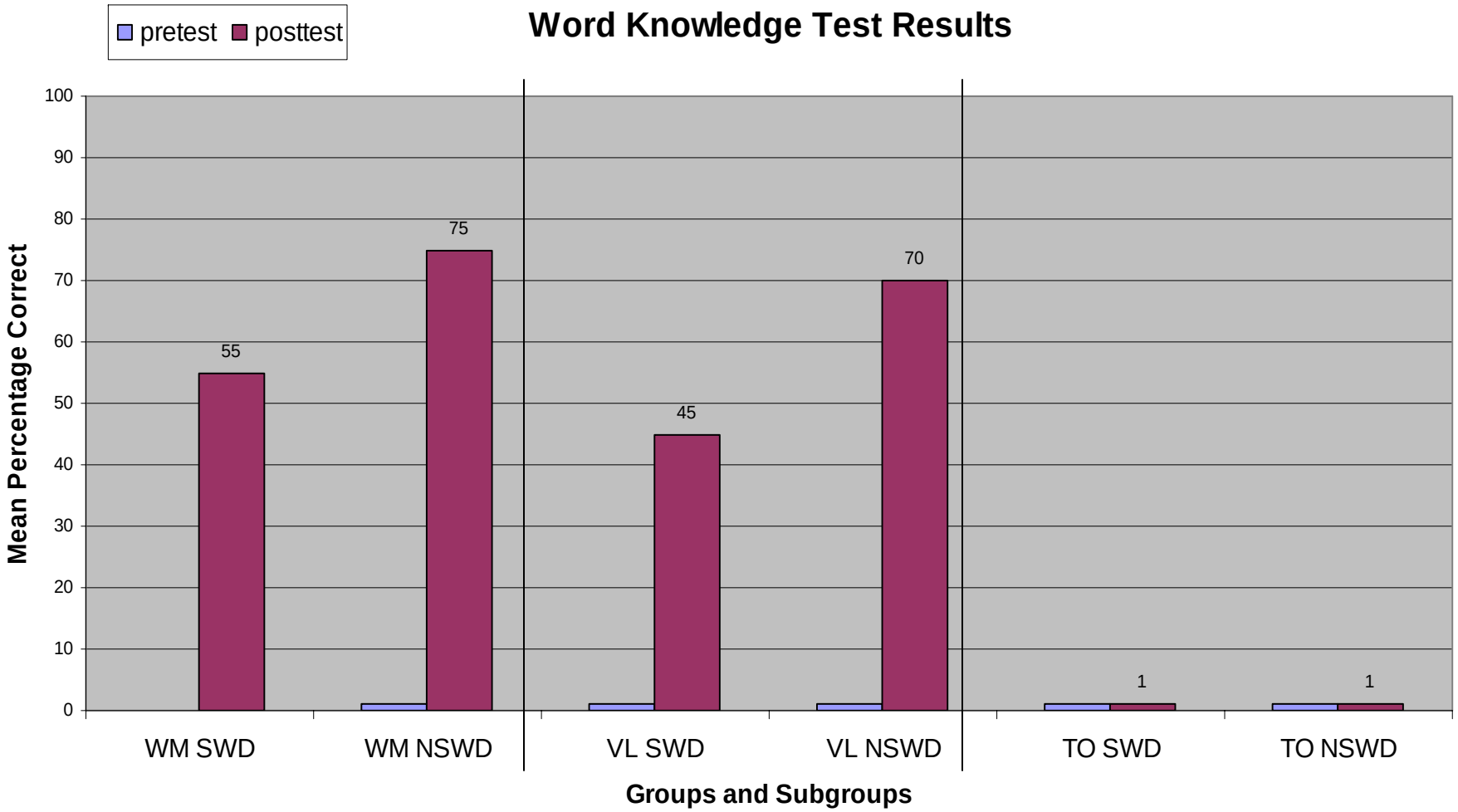
See if your prediction is correct by using context

Cue Card #13

WORD MAP



S ee if you're right!



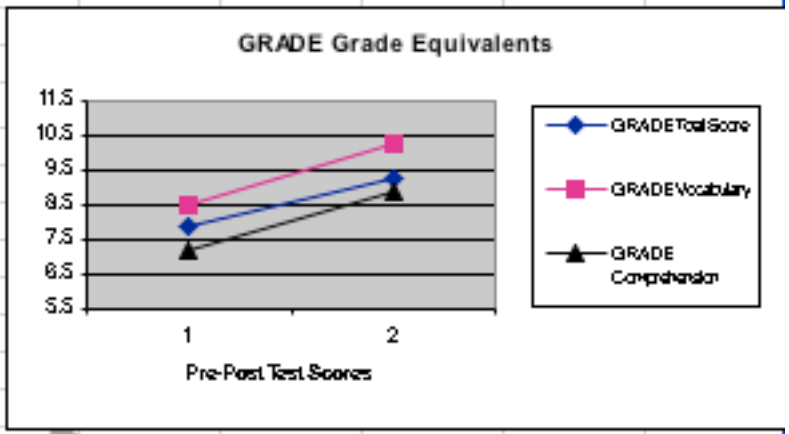
WM = Word Mapping
VL = Vocabulary LINCing
TO = Test-only

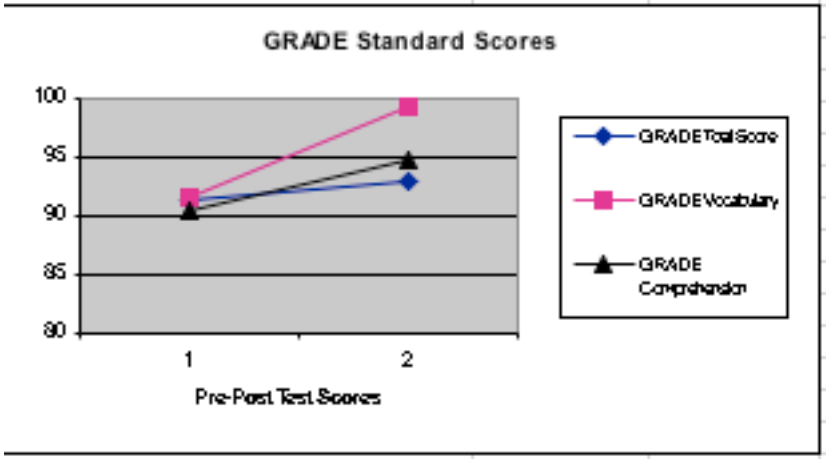
Wilks' Λ = .964, F(2,224) = 4.138, p = .017, partial $\eta 2$ = .036]

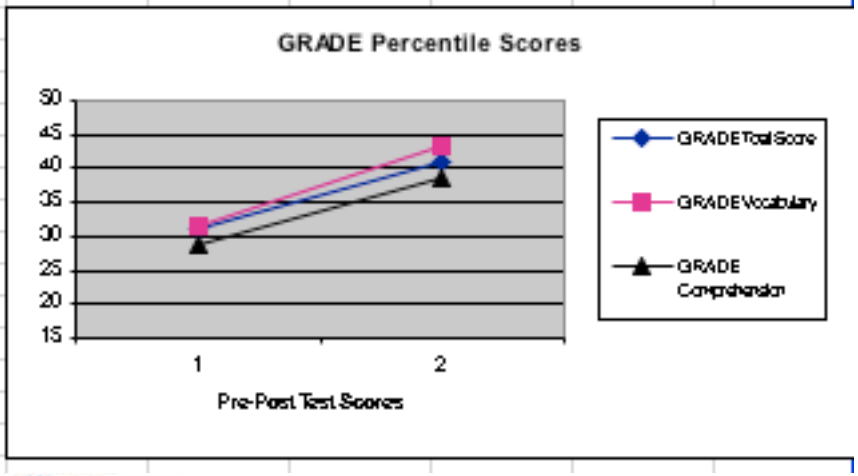
Are students significantly improving reading achievement?

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	



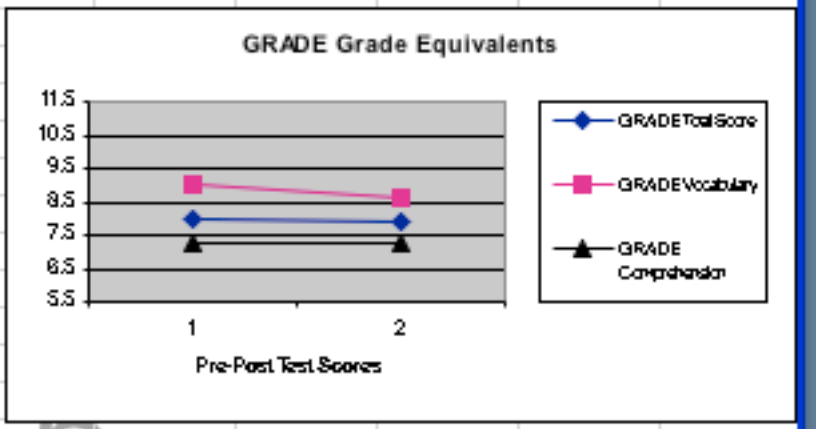


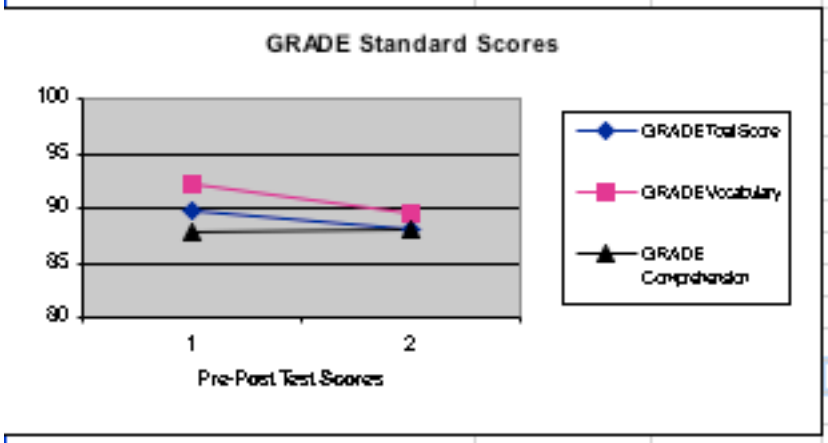


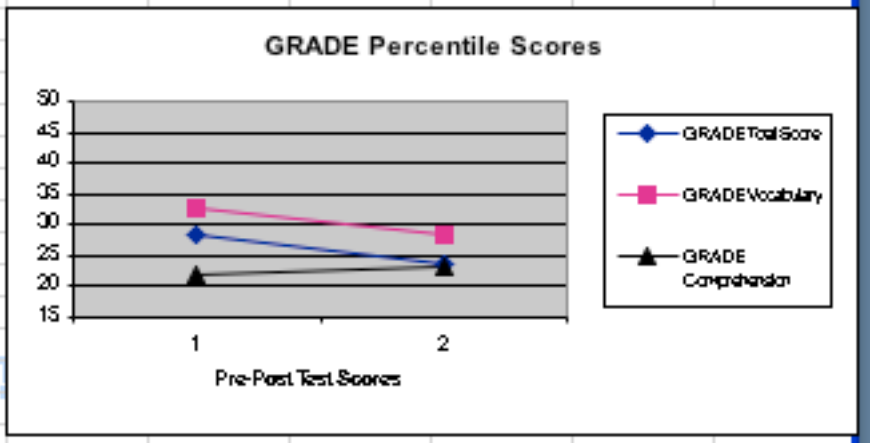
Are students significantly improving reading achievement?

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	







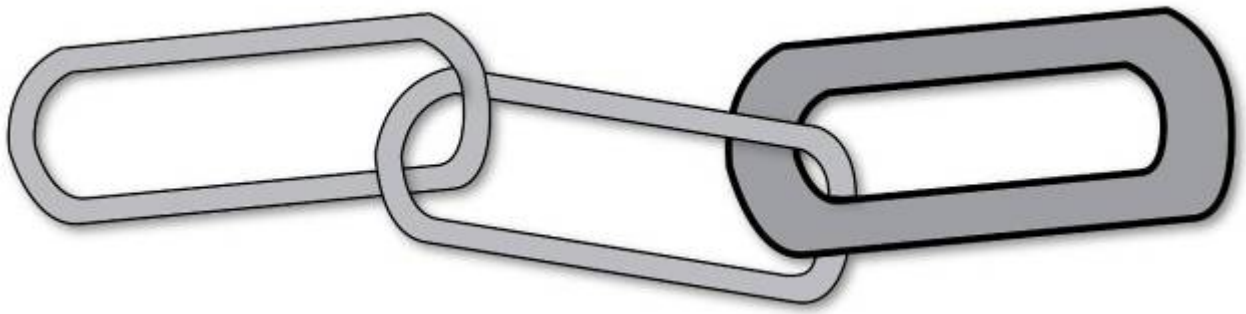
RTI Implementation

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

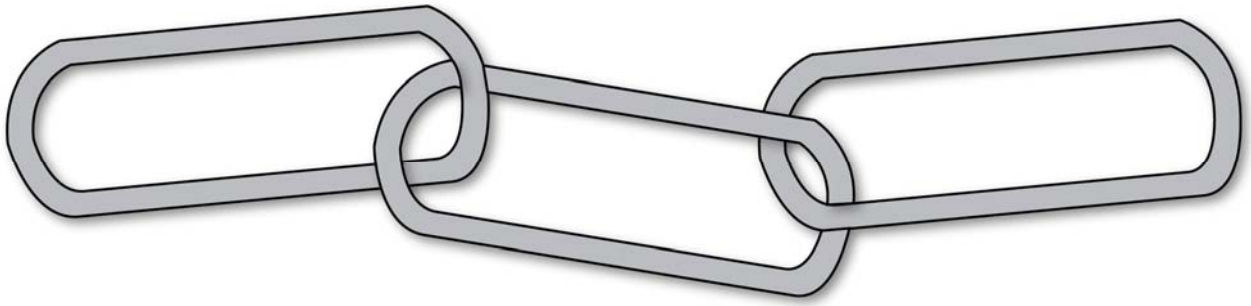
Over Reliance on Support Education

Present



1 2 3

Future



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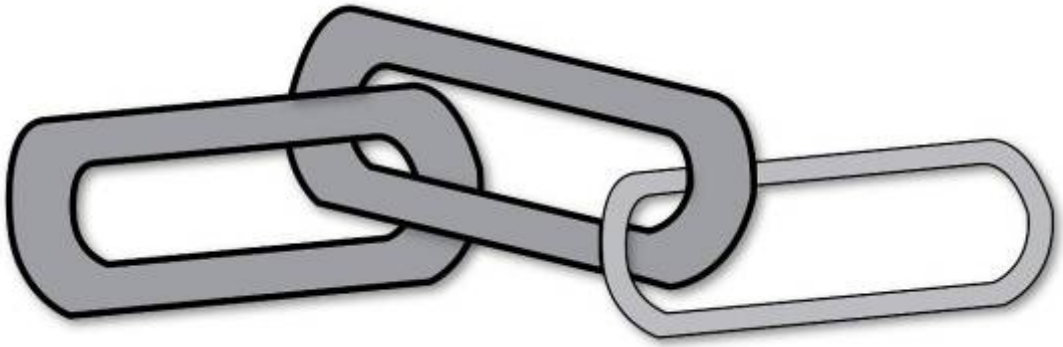
Over Reliance on General Education

Present



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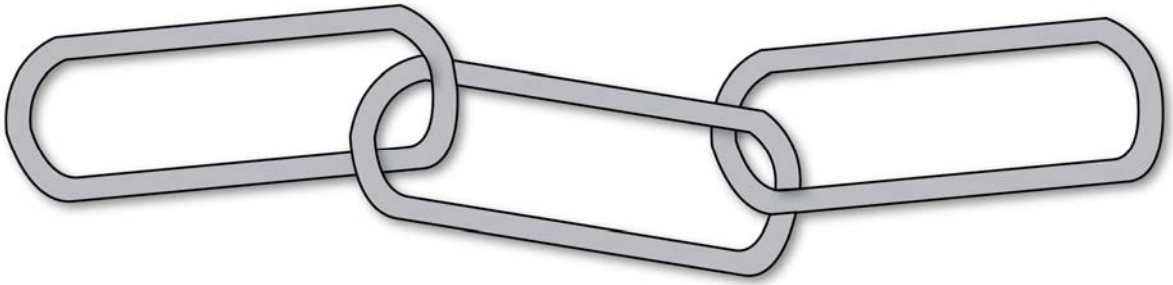
Future



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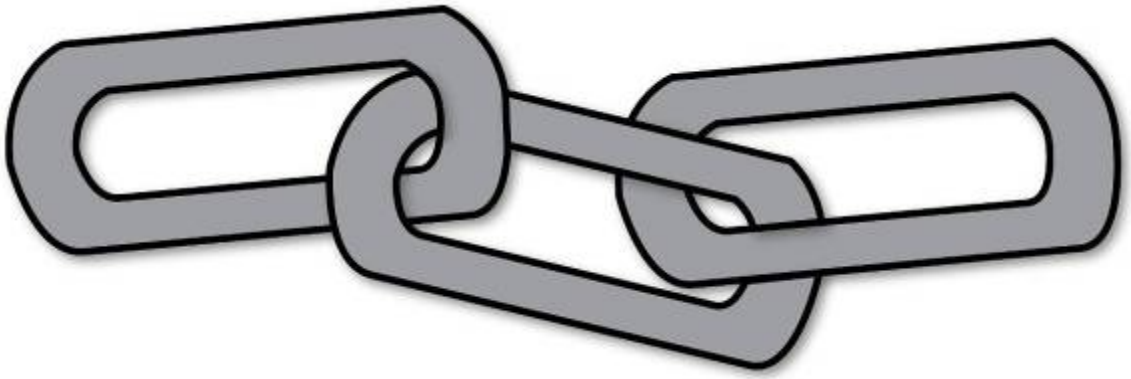
Goal: Balanced Strength



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Thank You!

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