Twitching tufted tail, a toasty, tawny tummy: A tired tiger.

...an alliterative haiku by Calvin. Thank you, thank you.

Sheesh.
Effective Comprehension Instruction
Today

• Inference Strategy
• Comprehension games
Pre Knowledge Survey
Comprehension Games

Kim Landrum
Council for Post-Secondary Education (CPE) Integration of the Common Core with the Inference Strategy

Facilitated by Tricia Bronger

Strategy developed by:
Nanette Fritschmann, Ph.D.
Jean B. Schumaker, Ph.D.
Donald D. Deshler, Ph.D. 07/08
We’ve heard about the problem!

- 8.7 million 4th-8th graders can’t comprehend their texts
- Only 70% of students graduation…only 50% of students of color graduate
- 23% of 8th graders read below the basic level on the NAEP
The Inference Strategy

helping older students learn how to make inferences about what they have read and answer questions

- by determining
- by teaching students how to
- through multiple opportunities for

- use the INFER steps to answer questions (Stage 2 and 3)
  - through describing and modeling

- practice and feedback (Stages 4-6)
  - including
    - verbal practice
    - controlled practice
    - advanced practice

- level of mastery (Stage 7)
  - through a

- generalization (Stage 8)
  - through a

- level of student skills (Stage 1)
  - through a
    - pretest

- introduction
  - factual questions
  - big picture questions
  - prediction questions
  - clarifying questions

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Our Advance Organizer

- What is the *Inference Strategy*?
- Modeling and Practice
- Evidence that it works
In pairs

- Summarizing
- Paraphrasing
- Inferring
Common Core
State Standards
Inference

• Making inferences has been defined as the ability to "construct the text base and the mental models that go beyond the information directly articulated in the text" (Snow, 2002, p. 108).
Specifically…..let’s turn our attention to teaching students to make inferences.

- What does ‘to infer’ mean?
  - To guess the best answer based on the information you already know.
When a student infers, the reader is expected to integrate clues in the text with prior knowledge to create an answer.
Asking questions

• The ability to generate inferences is typically tested by asking questions like, "Why did the boy take action like he did?" or "What is the main message of this passage?"
The Wall (Reading Rainbow Books)

Other Views - Click on image to change view.
Elements of a solution include:

- Engaging Literature
- Validated Instructional Principles
- Powerful Strategies

Habits of Learning

Goals
But….the problem is exacerbated by these realities:

- State assessments for older students
  - include more expository than narrative text
  - require students to answer increasing complex questions
  - show a *marked* shift from literal to inferential questions

- Few programs prepare students to respond to these realities of Common Core State Standards.
We’ve heard about the problem…

- 8.7 million 4th-8th graders can’t comprehend their texts
- Only 70% of students graduate… only 50% of students of color do
- 23% of 8th graders read below the basic level on the NAEP

After viewing the cartoon make an inference as to its meaning by:

- describing the cartoon
- telling what you have to bring to the cartoon to understand it
- telling what message the artist is trying to portray

Remember to use the following strategies when trying to infer meaning.

- use the pictures
- use your schema
- use the words in the text
- reread the selection
- think about the piece (or words)
- listen to the ideas of others
- make connections
The *Inference Strategy* will teach students to:

- **I**nteract with the questions and the passage
- **N**ote what you know
- **F**ind the clues
- **E**xplore any supporting details
- **R**eturn to the question
Clarifying topic

Please note: *inferencing* is not a word. This is the *Inference* (n. a conclusion, deduction, or supposition) Strategy and one *infers* (v. concludes, supposes, or deduces).
The Inference Strategy

is about...

helping older students learn how to make inferences about what they have read and answer questions

by determining

through multiple opportunities for practice and feedback (Stages 4-6)

including

verbal practice

controlled practice

advanced practice

by teaching students how to

through describing and modeling

use the INFER steps to answer questions (Stage 2 and 3)

level of student skills (Stage 1)

through a pretest

level of mastery (Stage 7)

through a posttest

generalization (Stage 8)

by ensuring students use through

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The Innovative Teacher

...on an off day

— G Grow

Strategic Instruction Model
INFECTION STRATEGY

CUE CARD #3

TYPES OF QUESTIONS

• Factual Question
  The answer is right there in the passage.

• Think and Seek Question
  The answer is not in the passage.

http://jc-schools.net/tutorials/gameboard.htm
The *Inference Strategy* will teach students to:

- **I**nteract with the questions and the passage
- **N**ote what you know
- **F**ind the clues
- **E**xplore any supporting details
- **R**eturn to the question
Part 1
Determining Students’ Skills

• **Stage 1-Pretest**
  Sets the stage by providing information on students’ current skills:
  • Discriminating types of questions
  • Finding clues related to comprehension questions
  • Answering comprehension questions
Part 2
Teaching Students to Use the INFERENCE Steps to Answer Questions

Stages 2 & 3

Lesson 1 – Intro to the Inference Strategy
Lesson 2 – Factual Questions
Lesson 3 – Big Picture Questions
Lesson 4 – Predicting Questions
Lesson 5 – Clarifying Questions

Pgs. 14 - 22
Infer means to __________ about something based on __________________ that you have learned.

You can use the __________ Strategy to _______________

The **first** step to the Inference Strategy is to _______________

To interact with the questions means to think ___________________ the questions.

The **second** step of the Inference Strategy is to _______________

During the N Step, you will figure out the ________ it is and write a __________________ next to it.

There are two major types of questions: ___________________ and ___________________

The answer for a Factual Question is ____ in the text.

With Think & Seek Questions, you must think and look for _______________ to figure out the best answer.

Note: Appendix B contains a “Notes Sheet” for Lessons #1-5.
Advance Organizer

• What is the *Inference Strategy*?

• Modeling and Practice

• Evidence that it works
Cell Phones

People are talking on cell phones more and more around the world. In the United States, cell phone usage grew from 340,000 subscribers in 1985 to 158 million in 2005. Today, Americans spend an average of seven hours a month talking on their cell phones. That figure is low compared to some Asian societies. One of the highest rates is in Israel, where 76% of the population has cell phones.

Cell phones have both psychological appeal and practical advantages. They are a status symbol and help people to feel special and important. Cell phones can also improve convenience and safety. In one country, people use them to switch on the heat while they are driving home. A cell phone user can call for help if her car breaks down, especially at night. Travelers and children can phone home to assure their family that they have arrived safely at their destinations.

Cell phones can also cause problems. People who use their cell phones while driving are more likely to have accidents. Ringing cell phones often interrupt movies, church services, lectures, and concerts. People speaking on their cell phones in subways can ruin the peace of mind of other passengers. A questionnaire found that 59% of people would rather visit the dentist than sit next to someone using a cell phone. Rude cell phone users have sometimes been violently attacked, for example, with pepper spray by movie goers or by being rammed with cars.

Questions:
1. What is the purpose of this passage?
2. How many hours a month do Americans talk on their cell phones?
3. How do the advantages of cell phones compare to their disadvantages?
TYPES OF QUESTIONS

• Factual Questions

• Think and Seek Questions
  • Big Picture Questions
  • Predicting Questions
  • Clarifying Questions
The Inference Strategy

Helping older students learn how to make inferences about what they have read and answer questions.

- Using the INFER steps to answer questions (Stage 2 and 3)
  - Through describing and modeling
- Through multiple opportunities for practice and feedback (Stages 4-6)
  - Including verbal practice
  - Controlled practice
  - Advanced practice
- By determining level of mastery (Stage 7)
  - Through a posttest
- Generalization (Stage 8)
  - Through students using the strategy

Level of student skills (Stage 1)
- Through a pretest

Introduction
- Factual questions
- Big picture questions
- Prediction questions
- Clarifying questions

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Stage 2 & 3
Describe & Model

1. Five lessons
2. Format: Introduced and subscribe
3. Conduct Demo Activity (INFER)
4. Conduct Independent Practice Activity
5. Post-Organizer
Jigsaw Time!
At your table

1. Create an INFER family (of 4)
   • Lesson 2-Factual
   • Lesson 3-Big Picture
   • Lesson 4-Predict
   • Lesson 5-Clarify

2. Table 2-5
   • Gather with your Lesson family, study, become the expert on your lesson.
3. Note agreed information to report to your Lesson family

4. Gather with INFER family and report out
Stages 2 & 3
Describe & Model

Lesson 1 – Intro

Lesson 2 – Factual Questions
Lesson 3 – Big Picture Questions
Lesson 4 – Predicting Questions
Lesson 5 – Clarifying Questions

Pgs. 23-31

Think and Seek Questions
Verbal Practice

Quizzes: p. 121
or
Checklists p. 122
Mastery = all steps in order
Controlled & Advanced Practice

• 15 – 30 minutes: 2-3 independent practices
• Assignments: guided, cooperative, or independent practice
• Feedback
• Fluency
• Scoring
Factual Questions

• Require finding a fact in the information that you have read.

• The answer is right there in the passage.
Example Factual Questions

- What color is the boy’s hair?
- What is the name of the girl’s best friend?
- How many years have the people lived in their house?
- Where is the train going?
- Who is on the boat with the lady?
- When did the man arrive?
- Which dog bit the child?
Key Words for Factual Questions

Who
What
When
Where
Think of one of the Disney movies you have seen or stories you have read. Make up a FACTUAL QUESTION based on it.
Steps for Teaching
(pgs. 23 - 31)

• Describe it. Use Cue Cards #1, 3, 6-8.
• Model it using Lesson 2 Passage 1 (in student materials).
• Have students independently complete Lesson 2 Passages 2 - 4, as needed (in student materials).
Stages 2 & 3

Lesson 1 – Describe
Lesson 2 – Factual Questions
Lesson 3 – Big Picture Questions
Lesson 4 – Predicting Questions
Lesson 5 – Clarifying Questions

Pgs. 32-42
Big Picture Questions

• Require you to figure out the main idea or big message or theme of the passage.
• May ask for the purpose of the writer.
• May ask for summary information
  • Setting
  • Tone
Example Big Picture Questions

• What is the main idea of this passage?
• What is the author’s main message?
• What is the main idea of the first paragraph?
• What is the theme of this passage?
• What was the author’s purpose in writing this passage?
• What is the setting of this story?
• What is the tone of this passage?
• Which of these statements summarizes what this passage is about?
**Main Idea**
- **DEFINITION:** The big idea in a paragraph or passage.
- **EXAMPLE:** This passage is about how people lived during the Renaissance.

**Purpose**
- **DEFINITION:** The author’s reason for writing the passage.
- **EXAMPLE:** The author wants to convince the reader to exercise each day.

**Summary**
- **DEFINITION:** A short statement that tells about a long passage.
- **EXAMPLE:** The passage is a story about a man who breaks his arm and learns a lesson.

**Message**
- **DEFINITION:** The author’s communication in writing to the reader. What the author wants the reader to know or understand.
- **EXAMPLE:** The author wants us to understand that people should not say mean things about other people.
Key Big Picture Question Words (continued)

**Theme**
- **DEFINITION:** Another word for “message” or what the author wants the reader to know.
- **EXAMPLE:** The theme of this passage is that it’s better to be safe than sorry.

**Setting**
- **DEFINITION:** The place in which the story is located.
- **EXAMPLE:** This takes place in the African jungle.

**Tone**
- **DEFINITION:** The feeling of the passage. The emotions the author is expressing through the use of certain words like adjectives and adverbs.
- **EXAMPLE:** This passage is an angry passage. The author shows that anger through the ways Peter acts by throwing things and yelling.
Big Picture Questions
Include
Purposes for Writing

• Entertain
• Inform
• Persuade
Turn to your Neighbor

Think of one of the Disney movies you have seen or books you have read. Make up a BIG PICTURE QUESTION based on it.
Steps for Teaching (pgs. 32 - 42)

• Describe it. Use Cue Cards #3, 5, 8-12.
• Model it using Lesson 3 Passage 1 (in student materials).
• Have students independently complete Lesson 3 Passages 2 - 4, as needed. (in student materials).
Stages 2 & 3

Lesson 1 – Describe
Lesson 2 – Factual Questions
Lesson 3 – Big Picture Questions
Lesson 4 – Predicting Questions
Lesson 5 – Clarifying Questions

Pgs. 43 - 50
Predicting Questions

• Require you to make a guess or forecast about what will happen in the future.

• Require you to base your forecast on information you have read.
Example Predicting Questions

- What do you think will happen next?
- What is the most likely event to happen next?
- What will the main character do next?
- What will happen to the boy in the future?
- Where will the boy hide?
- Who will help her?
- When will she be found?
- Which of his friends will stay over night?
- If you were to finish this story, how would it end?
Key Words for Predicting Questions

- Next
- Future
- Happen
- Will
- Down the road
- End
- Ending
- Effect
Think of one of the Disney movies you have seen or books you have read. Make up a PREDICTING QUESTION based on it.
Steps for Teaching (pgs. 43 - 50)

• Describe it. Use Cue Cards #1, 5, 8, 13-15.
• Model it using Lesson 4 Passage 1 (in student materials).
• Have students independently complete Lesson 4 Passages 2 - 4, as needed (in student materials).
Stages 2 & 3

Lesson 1 – Describe
Lesson 2 – Factual Questions
Lesson 3 – Big Picture Questions
Lesson 4 – Predicting Questions
Lesson 5 – Clarifying Questions

Think and Seek Questions

Pgs. 51 - 58

Strategic Instruction Model
Clarifying Questions

Require you to make sense of something
• Explain something
• Give a cause
• Give a reason
• Explain feelings
• Compare something
• Contrast something
Example Clarifying Questions

• What do you think the author meant when she used the word “satisfied” in Paragraph 1?
• What was Jason trying to do when he hid the money?
• How do you think Paula was feeling when she went to the store?
• What caused Mrs. Jones to give away the puppy?
• What do you think the reason was for his angry behavior?
• How does Jim’s behavior compare to Pedro’s behavior?
• How does the parade contrast with previous parades?
Key Words in Clarifying Questions

- Means
- Meant
- Cause
- Reason
- Compare
- Contrast
- Same
- Different
- Feeling
Turn to your Neighbor

Think of one of the Disney movies you have seen or books you have read. Make up a CLARIFYING QUESTION based on it.
Steps for Teaching (pgs. 51 - 58)

• Describe it. Use Cue Cards # 1, 5, 8, 16-18.
• Model it using Lesson 5 Passage 1 (in student materials).
• Have students independently complete Lesson 5 Passages 2 - 4, as needed (in student materials).
Now watch me....
Now you get to try some...
The Inference Strategy

- Helping older students learn how to make inferences about what they have read and answer questions.

- By determining students' level of student skills (Stage 1) through a pretest.

- Use the INFER steps to answer questions (Stage 2 and 3) through describing and modeling.

- Through multiple opportunities for practice and feedback (Stages 4-6) including:
  - Verbal practice
  - Controlled practice
  - Advanced practice

- By ensuring students use through level of mastery (Stage 7) through a posttest.

- Generalization (Stage 8)

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Practicing
Stages 4-6

• **Stage 4 – Verbal Practice**
• Stage 5 – Controlled Practice and Feedback
• Stage 6 – Advanced Practice and Feedback

*Pages 59 - 64*
1. List the steps of the INFER Strategy.
I
___________________________________________________
N__________________________________________________
F__________________________________________________
E__________________________________________________
R__________________________________________________

2. The two main types of questions are:
a. __________________________________________________
b. __________________________________________________

3. The three types of Think & Seek Questions and their code letters are:
   QUESTION NAME                      CODE LETTER
   ____________________________________________
   ____________________________________________
   ____________________________________________

4. To “infer” means that you:
   ____________________________________________
   ____________________________________________

5. Predicting questions require you to:
a. ____________________________________________
   ____________________________________________
   ____________________________________________
Let’s try some VP!!!!
Practicing Stages 4-6

- **Stage 4 – Verbal Practice**
- **Stage 5 – Controlled Practice and Feedback**
- **Stage 6 – Advanced Practice and Feedback**
Practicing
Stage 4-6

Stage 5 – Controlled Practice and Feedback

Guided Practice
Cooperative Practice

Independent Practice

Optional

Pages 66 - 72
Practicing Stages 4-6

• Let’s talk about WEEKEND p. 124

Group
Individual
Positive
Corrective

See pgs. 70-71
Inference Strategy Prompts List

Read a paragraph with the class. Whenever appropriate, pause (or ask the student to pause) and ask a variation of one of the example questions below. Ask the students to look for clues in the part just read. Discuss the clues with the class. Answer the question. Then read further, pause, ask another question as so forth. Ensure that all students participate.

BIG PICTURE QUESTIONS
What is the author’s purpose?
What is the main idea?
What is the theme?
What is the overall idea here?

PREDICTION QUESTIONS
What do you think will happen next?
Where do you think he will go?
What will she do next?
Who do you think they will find?
When will they find him?
What does the future hold for her?

CLARIFICATION QUESTIONS
What does this word ________ mean?
What does this part mean? Who can make sense of it?
What caused him to do this?
What happened that made her do this?
Why do you think she chose to act this way?
How would you compare (or contrast) what’s happening here with what happened earlier?
How would you compare (or contrast) what she just did with what ______ did?
What do you think he is feeling?
What do you suppose she was thinking when she did that?

FOR EACH QUESTION ASK THE STUDENTS TO:
N ote what they know.
What kind of question is this?
What letter code would you use?
F ind the clues:
What clues can you find in the part we’ve read already? (You might be able answer this question with the information you know so far.)
E xplore any supporting details:
Are there any other supporting clues?
R eturn to the question:
What’s the best answer to my question?
Practicing Stages 4-6

- Stage 4 – Verbal Practice
- Stage 5 – Controlled Practice and Feedback
- Stage 6 – Advanced Practice and Feedback
The Inference Strategy

helping older students learn how to make inferences about what they have read and answer questions

by determining
by teaching students how to
through multiple opportunities for
practice and feedback (Stages 4-6)
including
verbal practice
controlled practice
advanced practice

by determining
by ensuring students use through
level of mastery (Stage 7)
through a
posttest

by determining
generalization (Stage 8)

through a
pretest

level of student skills (Stage 1)
through a

use the INFER steps to answer questions (Stage 2 and 3)
through describing and modeling

introduction

factual questions
big picture questions
prediction questions
clarifying questions

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Part III
Determining Students’ Progress

Stage 7 - Posttest

Passage of about 400 words at the student’s grade level with 5-6 corresponding inferential questions

If score is < 80% do additional Advanced Practice activities.

If score is > 80% proceed to Stage 8: Generalization.

Pgs. 77-79
The Unit Organizer

The Inference Strategy

Helping older students learn how to make inferences about what they have read and answer questions.

- by determining
- by teaching students how to
- through multiple opportunities for

Level of student skills (Stage 1) through a
- pretest

Use the INFER steps to answer questions (Stage 2 and 3) through describing and modeling
- introduction
- factual questions
- big picture questions
- prediction questions
- clarifying questions

Practice and feedback (Stages 4-6) including
- verbal practice
- controlled practice
- advanced practice

Level of mastery (Stage 7) through a
- posttest

Generalization (Stage 8) through a

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Part IV
Ensuring Students Use the Strategy

Stage 8-Generalization

Discuss and prepare for application of the strategy in natural settings

• Novels
• Textbooks
• Magazines
• Newspapers
Integration and Generalization
Appendix A - Scoring

- Guidelines
- Example Charts

Let’s practice!!!!!!
Research Evidence
Research Results on the Inference Strategy

• **Study Design**
  Multiple-probe across-subjects design

• **Student Outcome Measures**
  Scores on a Strategy-Use Test
  Scores on researcher-devised comprehension tests
  Scores on a standardized measure – GRADE
  Maintenance Measure
  Scores on a Student Satisfaction Measure
Results for the Criterion-based Comprehension Tests

![Bar chart showing average scores for Students 1, 4, and 7, with pretest and posttest averages compared.]
Results on the GRADE: Grade-level Scores

![Bar graph showing pre and post scores for students S1 to S8.](image)
Remember...
Some Givens....

• You know a lot about teaching!
• Teaching is an ART and a SCIENCE!
• Don’t lose the ARTISTRY of what you do as you work with the scientifically based research reading practices developed by the Center for Research on Learning.
• Our focus is on outcomes that enhance life opportunities-- this in no trivial matter!
• Teaching can be considered a moral imperative. (Michael Fullan)
• This workshop is just a first or second step of our work and learning together.
• Teaching struggling readers is rocket science!
• We’ve learned much about our students and reading.
The Unit Organizer

The Inference Strategy

is about...

helping older students learn how to make inferences about what they have read and answer questions

by determining

through multiple opportunities for

practice and feedback (Stages 4-6)

including

verbal practice

controlled practice

advanced practice

by teaching students how to

through describing and modeling

Use the INFER steps to answer questions (Stage 2 and 3)

by determining

through a

level of student skills (Stage 1)

pretest

introduction

factual questions

big picture questions

prediction questions

clarifying questions

by ensuring students use through

generalization (Stage 8)

level of mastery (Stage 7)

through a

posttest

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Post Knowledge Survey
Evaluation