



LEARNING SCIENCES
INTERNATIONAL

Study Guide

Processing New Information

Classroom Techniques to Help Students Engage with Content

Processing New Information

After reading pages 5–12, which preview the rest of the guide, process your understanding. Further discuss any areas of confusion or interest with your book study group.

The Effective Implementation of Processing New Information

List the seven teacher behaviors associated with the active processing of information.

1. _____
2. _____
3. _____
4. _____
5. _____
6. _____
7. _____

Record your understanding by explaining, in your own words, the three common mistakes listed on pages 8–9.

Mistake	Description

Monitoring for the Desired Result

The text lists seven examples of evidence that show whether your students are able to actively process new information. Use each of the examples of evidence in the appropriate box below.

Examples I Have Used as Evidence	Examples That Are New to Me

Processing New Information

After reading pages 5–12, which preview the rest of the guide, process your understanding. Further discuss any areas of confusion or interest with your book study group.

Instructional Techniques to Help Students Process New Information

This guide presents six techniques to facilitate the processing of new information by your students. Each of the techniques is similarly organized. Choose one technique in which you are most interested, and share what you hope to learn or improve from it.

Which technique did you choose?

What do you hope to learn or improve? Discuss your answer with your book study group.

Using Collaborative Processing

How to Effectively Implement Processing New Information Using Collaborative Approaches

There are two perspectives to consider prior to implementing the processing of new information using collaborative processing. Record your understanding by listing and describing, in your own words, the two perspectives.

Look at the list of common mistakes on page 21, and identify one you have been guilty of in the past.

Determining if Students Can Process New Information Using Collaborative Processing

Which of the four examples of monitoring described in the text would you be most likely to use and why?

Using Collaborative Processing

After reading pages 13–28, choose one standard from your subject area and/or grade with which to work. Record that standard on the lines below.

Using the standard above and a corresponding text or concept, write a script for either explaining, giving directions, modeling, or facilitating collaborative processing.

Scaffold and Extend Instruction to Meet Students' Needs

What are the three primary reasons that many students may have difficulty processing new information?

1. _____
2. _____
3. _____

Using the examples in the text and the standard you have chosen, describe one way in which you might scaffold and one way in which you might extend the lesson.

Scaffold	Extend

Processing New Information Using Think-Pair-Share

Plan for the Effective Implementation of Think-Pair-Share

List and describe, in your own words, the three critical “to-do” items when using the Think-Pair-Share method to facilitate the active processing of new information.

Determining if Students Can Process New Information Using Think-Pair-Share

What are the two components of monitoring the Think-Pair-Share technique?

1. _____

2. _____

Describe how a proficiency scale would be useful in monitoring how students are progressing in their ability to process new information and which students need more support or extending.

Processing New Information Using Think-Pair-Share

After reading pages 29–48, choose one standard from your subject area and/or grade with which to work. Record that standard on the lines below.

Using the standard above and a corresponding text or concept, plan a lesson that utilizes the Think-Pair-Share technique.

1.

2.

3.

4.

5.

6.

Give two examples (each) of ways in which you might scaffold and extend for those students who might need it.

Scaffold	Extend
1.	1.
2.	2.

Using Concept Attainment

How to Effectively Implement Concept Attainment

There are six terms you and your students must define for mastery of concept attainment. In the boxes below, record your understanding by listing the terms, and defining them in your own words.

Terms	Definition

Identify and describe the two versions of the concept attainment technique.

Determining if Students Can Process New Information Using Concept Attainment

Which of the six example of monitoring described in the text would you be most likely to use, and why?

Using Concept Attainment

After reading pages 49–60, choose one standard from your subject area and/or grade with which to work. Record that standard on the lines below.

Using the standard above and a corresponding text or concept, plan a lesson following the nine steps outlined in the text. Refer back to the templates on pages 51–54.

- 1.
- 2.
- 3.
- 4.
- 5.
- 6.
- 7.
- 8.
- 9.

Once you have planned your lesson, choose one way that you will monitor for your desired result. Using the examples from the text, devise a plan to monitor that is specific to the lesson you have planned. Record your plans on the line below.

Describe one way in which you could scaffold, and one way in which you could extend the lesson.

Scaffold	Extend

Using Jigsaw

How to Effectively Implement Processing New Information Using Jigsaw

Fill in the blanks.

A critical attribute of the Jigsaw process that distinguishes it from other methods is the degree of _____ among students that it requires.

Only as a result of _____ and _____ can the group assemble the big picture.

Look at the list of common mistakes on page 65. Identify two that you have been guilty of in the past and how you plan to improve going forward.

Mistake	Improvement
1.	
2.	

Determining if Students Can Process New Information Using Jigsaw

List the two important things to monitor for as the final step of successfully implementing the Jigsaw process mentioned in the text.

Using Jigsaw

After reading pages 61–74, choose one standard from your subject area and/or grade with which to work. Record that standard on the lines below.

Using the standard above, plan an activity that utilizes the Jigsaw technique. Refer to the tables on pages 63–64 for guidance.

1.

2.

3.

4.

5.

6.

Describe one specific monitoring technique you would use, as well as one scaffolding technique and one extending technique.

Monitoring Technique

Scaffold	Extend
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Using Reciprocal Teaching

How to Effectively Implement Processing New Information Using Reciprocal Teaching

The reciprocal teaching strategy consists of directly teaching what four cognitive/comprehension strategies?

1. _____
2. _____
3. _____
4. _____

List the three steps necessary to effective implementation of reciprocal teaching.

1. _____
2. _____
3. _____

Determining if Students Can Process New Information Using Reciprocal Teaching

Describe how a proficiency scale would be useful in monitoring students' progress toward proficiency using the reciprocal teaching method.

Using Reciprocal Teaching

After reading pages 75–87, choose one standard from your subject area and/or grade with which to work. Record that standard on the lines below.

Using the standard you have chosen, plan a lesson that uses the reciprocal teaching technique. Refer to the tables on pages 80–81 for reference.

1.

2.

3.

4.

5.

6.

7.

Using examples from the text, the standard you have chosen, and the lesson you have planned above, describe one way you might scaffold and one way you might extend the lesson.

Scaffold	Extend

Using Scripted Cooperative Dyads

How to Effectively Implement the Processing of New Information Using Scripted Cooperative Dyads

What are the two roles in a scripted cooperative dyad?

1. _____

2. _____

Record your understanding by listing and describing the six steps in a scripted cooperative dyad.

Step	Description

Determining if Students Can Process New Information Using Scripted Cooperative Dyads

Which of the monitoring techniques discussed have you used in your classroom?

Which of the monitoring techniques discussed will you most likely implement, and why?

Using Scripted Cooperative Dyads

After reading pages 89–97, choose one standard from your subject area and/or grade with which to work. Record that standard on the lines below.

Using the standard above and choosing a corresponding text or concept, create a student friendly guide for introducing scripted cooperative dyads. Refer to the tables on pages 90–91 for guidance.

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Using the examples in the text and the standard you have chosen, describe one way in which you might scaffold and one way in which you might extend the lesson.

Scaffold	Extend

Processing New Information

Key Terms and Ideas for Implementation of Instructional Techniques

Use the space below to record key terms and ideas that are essential for the implementation of each instructional technique.

Instructional Technique 1: Using Collaborative Processing
Instructional Technique 2: Using Think-Pair-Share
Instructional Technique 3: Using Concept Attainment
Instructional Technique 4: Using Jigsaw
Instructional Technique 5: Using Reciprocal Teaching
Instructional Technique 6: Using Scripted Cooperative Dyads

For additional reflection questions, refer to page 100 in the text.