

THE IMPORTANCE OF UNDERSTANDING WRITTEN TECHNICAL INFORMATION

Performance Standard 1B.I

Students will use the SQ3R reading strategy (surveying, questioning, reading, reciting, reviewing) to preview a text and make predictions about the reading. They will then read the text and complete the remaining steps of the reading strategy. The teacher will evaluate the questions and outline, using the attached rubric accordingly:

- *Surveying/Questioning (Prior to Reading)*: answer questions; predict text content.
- *Reading/Reciting/Reviewing the Outline (After Reading)*: include significant main points from the text; include details that support the main points.

Procedures

1. ***In order to apply reading strategies to improve understanding and fluency (1B)***, students should experience sufficient learning opportunities to develop the following:

- Use previewing and predicting before reading and questioning during reading.
- Relate reading with information from other sources (e.g., prior knowledge, personal experience, other reading) using a variety of strategies.
- Clarify meaning of text by focusing on the key ideas presented explicitly or implicitly.
- Identify how different content areas require different organizational structures (e.g., science text, literary text).

Individuals employed in industrial related occupations are often required to read technical manuals concerning the setup or operation of sophisticated equipment or the interpretation of job specifications. This assessment aligns with the Illinois Workplace Skills D4 (Communicating on the Job/Prepare written communication) and D5 (Communicating on the Job/Follow written directions).

2. Have students review and discuss the assessment task and how the rubric will be used to evaluate their work.
3. Industrial students need to be familiar with the SQ3R reading strategy. (See task sheet.)
4. Students will have practiced SQ3R on several technical manuals prior to the assessment.
5. Select a technical manual from available subject areas and formats.
6. Each industrial student will apply SQ3R to the technical manual to preview and ask questions about the content, organizational structure and author's purpose for writing.
7. Each student will read the technical manual and complete the remaining steps of the reading strategy.
8. Evaluate each student's performance using the rubric. Add each student's scores to determine the performance level.

Examples of Student Work

- [Meets](#)
- [Exceeds](#)

Time Requirements

- One to two class periods

Resources

- Copies of the selected technical manual
- Copies of the SQ3R and Reading Comprehension for Technical Manuals task sheet
- SQ3R and Reading Comprehension for Technical Manuals Rubric

SQ3R AND READING COMPREHENSION FOR TECHNICAL MANUALS

Student Task Sheet

1. SURVEY

What kind of technical manual is this? What is its title?

What physical features of the technical manual can you identify? (Subtitles, Pictures, Diagrams, Bold and Italic type)

What chapter headings and/or section headings, if any, are used?

2. QUESTION

After you have surveyed the technical manual, ask yourself the following questions:

WHO? (Who would benefit from reading this technical manual?)

WHAT? (What specific task(s) are explained? What types of tools might be required?)

WHEN? (When was this technical manual written, and is the information current?)

WHY? (Why did you think this technical manual would be helpful?)

HOW? (How could you improve the technical manual to make it better?)

(For the purpose of this assessment, turn in a copy of your answers to these questions before you begin reading.)

3. READ

Go back to the beginning of the technical manual and begin reading normally. Check your answers from Step 2, and add any information you get from the reading.

4. RECITE

Cover the answers to your questions and recite them. Quiz yourself on your knowledge of the technical manual.

5. REVIEW

Go back over the material. Reread your notes and outline the main points. Then hand in a copy of your outline to your teacher.

SQ3R AND READING COMPREHENSION FOR TECHNICAL MANUALS

NAME _____ DATE _____

- Exceeds standard (must receive 7 - 8 total points)
- Meets standard (must receive 5 - 6 total points)
- Approaches standard (must receive 3 - 4 total points)
- Begins standard or absent (must receive 2 total points)

| | Survey/Question (Prior to Reading) | Read/Recite/Review Outline (After Reading) |
|--------------|---|---|
| 4 | <ul style="list-style-type: none"> • All five questions have been answered. • Answers consistently predict text content. | <ul style="list-style-type: none"> • Content outline contains all significant main points from the text. • Details consistently support the main points. |
| 3 | <ul style="list-style-type: none"> • All five questions have been answered. • Answers usually predict text content. | <ul style="list-style-type: none"> • Content outline contains most significant main points from the text. • Details consistently support the main points. |
| 2 | <ul style="list-style-type: none"> • Three or four questions have been answered. • Answers sometimes predict text content. | <ul style="list-style-type: none"> • Content outline contains some significant main points from the text. • Details sometimes support the main points. |
| 1 | <ul style="list-style-type: none"> • Two or fewer questions have been answered. • Answers seldom or never predict text content. | <ul style="list-style-type: none"> • Content outline contains few or no significant main points from the text. • Details seldom or never support the main points. |
| Score | | |